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PROVISIONAL INTELLIGENCE REPORT

DEVELOPMENT AND POTENTIAL OF THE TEXTILE INDUSTRY IN THE SOVIET BLOC



CIA/RR PR-98

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PROVISIONAL INTELLIGENCE REPORT

DEVELOPMENT AND POTENTIAL OF THE TEXTILE INDUSTRY
IN THE SOVIET BLOC

CIA/RR PR-98

(ORR Project 21.153)

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The purpose of this report is to trace the development of the textile industry in the Soviet Bloc, to appraise the textile situation in 1953, and to indicate developments expected through 1955. The report attempts to determine the uses and requirements of textile products by consumer, industrial, and military sections of the economy. Against this background, significant developments in the textile field as they affect the capabilities, vulnerabilities, and intentions of the Soviet Bloc are pointed out.

The report deals primarily with the textile industry in the Soviet Bloc as a whole. No attempt is made to present a detailed analysis of the industry in each of the countries in the Bloc. Available detailed statistics on each country in the Bloc are included in an appendix.

This report is not an analysis of the relation of the textile industry to the economy as a whole. It does discuss, however, the role of the textile industry in the current consumer goods program in the Soviet Bloc. Some consideration is also given to long-term trends and to plans to increase the output of textile products in the Bloc countries.

Because of incomplete coverage in all phases of the textile industry, estimates of unknowns were made by either inductive or deductive methods. Statistical data on comparable items for individual countries, therefore, were not all derived by the same method. Where published data were available, however, checks and cross-checks were made, on the basis of either known supporting data or computed factors. In most cases, published data showed a high degree of consistency with computed results.

In general, the estimates contained in this report do not represent actually weighed or measured quantities. The range of error is at least plus or minus 5 percent, and in individual figures it may be greater.

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(ORR Project 21.153)S-E-C-R-E-TDEVELOPMENT AND POTENTIAL OF THE TEXTILE INDUSTRY
IN THE SOVIET BLOC*Summary

Before World War II the textile industries in the various countries which now constitute the Soviet Bloc were in stages of development consistent with the degree of general industrial progress in the individual countries. The prewar per capita availability of the three main textile fibers (cotton, wool, and rayon) in the USSR, for example, is estimated at 3.7 kilograms and that in China at 1.7 kilograms -- generally below prewar per capita availabilities in Eastern Europe, which ranged from 3.8 to 7.4 kilograms, and those in Western Europe, which ranged from 4.2 kilograms in Italy to 11.2 kilograms in the UK. World War II and the accompanying destruction reduced the availability of textile products to consumers in the countries of the Soviet Bloc to standards considerably below the prewar level. During the postwar years the textile industry developed slowly and did not attain prewar production levels until 1950. Major factors contributing to the poor recovery were the low rate of investment in machinery and equipment and the reduction of imports of fiber from non-Bloc countries.

During the 1950-53 period, the Soviet Bloc countries attempted to offset the lack of imported fibers by an intensive program to produce sufficient fiber to meet available mill capacities. At the same time, however, the tax revenue from textile products was used for investment in heavy industry and defense rather than for reinvestment in light industry. This action has tended to keep the availability of consumer textile products at a comparatively low minimum. The 1953 Soviet Bloc per capita availability of textile products, in terms of cloth, is estimated at 13.1 linear meters -- less than one-sixth of the US average of 81.8 meters. This comparatively poor supply was probably one of the factors contributing

* The estimates and conclusions contained in this report represent the best judgment of ORR as of 1 October 1954.

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to the promulgation of the recent consumer goods decrees in the USSR and the European Satellites. There has been no pronounced emphasis on this program in Communist China. The continuing efforts to increase production of textile products in that country are probably intended primarily to accumulate funds from the profits of the textile industry for investment in heavy industry.

Government control over the textile industry in the Soviet Bloc has followed the government control pattern of the USSR. Private enterprise has been largely eliminated -- by nationalization decrees in the European Satellites and by excessive taxes and control of raw material supplies in China. The directives establishing local co-operatives which are dependent on the state for raw material supplies extend government control even to local artisan industries.

The 1953 Soviet Bloc production of textile products from natural and synthetic* fibers, in terms of cloth, is estimated at 10.2 billion linear meters. The primary Bloc producer is the USSR, with a production of about 6.2 billion linear meters -- 60 percent of the Bloc total. The European Satellites (primarily Czechoslovakia, East Germany, and Poland) account for 2.2 billion linear meters, about 22 percent of the total, and Communist China produces an estimated 1.8 billion linear meters, the remaining 18 percent of the total. Estimated 1953 Bloc production of textile products, in terms of million linear meters of cloth, is as follows**:

	<u>Cotton</u>	<u>Wool</u>	<u>Linen</u>	<u>Silk</u>	<u>Total</u>
USSR	5,300	210	290	400	6,200
Communist China	1,800	6	N.A.	25	1,831
European Satellites	1,664	243	138	166	2,211
Total Soviet Bloc	<u>8,764</u>	<u>459</u>	<u>428</u>	<u>591</u>	<u>10,242</u>

The import of fibers by Soviet Bloc countries from the Free World during the 1952-53 trade year represented approximately 6.1 percent of total Bloc mill utilization. Estimated imports during the 1953-54 trade year are expected to show an increase of 10 percent over

* The synthetic fiber industry represents only about 8 percent of the total textile output.

** All fabrics except linen may contain some admixture of synthetic fibers.

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1952-53. The fact that most of these imports are of apparel-type wool indicates that efforts are being made to carry out the planned textile fabric programs. It is probable that in the USSR, cotton production in 1953 exceeded the capacity of its processing mills. This is indicated by the fact that by the end of April 1954 the USSR had shipped about 225,000 metric tons* of cotton to the European Satellites, which, in turn, have shipped a portion of the finished textile products to the USSR. The USSR normally exports small quantities of textile products to underdeveloped areas such as Iraq, Iran, and Egypt.

Stockpiles of textile products in the Soviet Bloc countries consist primarily of supplies for emergency military needs. Firm quantitative estimates of stockpiles cannot be made, but reports from East Germany indicate that total carryover at the end of the year may range as high as 4 to 6 percent of mill production. It is estimated that most Bloc countries carry 3 or 4 months' supply of raw materials at current operating levels. There are indications, however, that some of the European Satellites have been operating on a narrower margin, resulting in partial idleness of mills. It is believed that strategic reserve stocks of fibers in the European Satellites are negligible. Strategic reserves of fibers in the USSR and Communist China are estimated to range from 3 to 5 months' supply.

Military forces in the Soviet Bloc are currently utilizing about 9.2 percent of available textile products. In time of war, however, military forces would have priority and might require as much as 30 to 40 percent of total textile output. About 16.8 percent of textile output is utilized by industry, and the remaining 74 percent of the textile output was utilized by households.

The Soviet Bloc has clearly defined intentions to increase total availability of textile products. In the summer of 1953, plans for increasing the output of textile products were included in the consumer goods decrees in the USSR and the European Satellites. Even though no published consumer goods program has been announced in Communist China, a continuing emphasis on increasing the production of textile products has been noted since 1950, and a part of the increase might be used for incentive purposes. Plans in the Bloc countries include efforts both to increase domestic fiber production and to raise the rate of capital investment in textile plants and

* Throughout this report, tonnages are given in metric tons.

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equipment. Although some of these plans are probably unattainable, it is estimated that by 1955 the Soviet Bloc as a whole can attain a total production of about 11.7 billion meters, in terms of cloth, which is only slightly less than the 1953 US cloth production of 12.9 billion meters. In order to achieve this level, however, the Bloc countries will have to import both textile fibers to supplement indigenous production and textile-processing equipment to increase production capacities.

Even if the 1955 projected levels of production and investment are attained, the per capita availability of textile products of 14.5 meters, in terms of cloth, will be less than one-fifth of the current US per capita availability. Such a low per capita availability would not represent consumer accumulations heavy enough to meet civilian needs in time of war without the probability of severe rationing and heavy admixtures of rags, waste, and other extenders.

I. Introduction.

The importance of textile products in the countries of the Soviet Bloc has been indicated by recent decrees concerning consumer goods, especially in the USSR and the European Satellites. These decrees emphasized the importance of textiles as incentives to greater output by both farm and nonfarm labor. In contrast to other agricultural commodities, textile products are directly essential to military operations. In time of war, the military forces would have priority for textile products, as indicated by US experience during World War II when 30 to 40 percent of the total textile output was utilized by the military forces.

Textile products as articles of apparel and household necessities make an important contribution to the new consumer goods programs. These products represent a major portion of the nonfood consumer goods in the Soviet Bloc. In addition, there are important industrial uses of textile products. By 1955 the Bloc's estimated output in terms of cloth of about 11.7 billion meters will be slightly less than the 1953 US output of 12.9 billion meters. The per capita availability of textile products in the Bloc of 14.9 meters in 1955 is, however, estimated to be less than one-fifth the 1953 US average of about 81.8 meters.

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The major problem facing the Soviet Bloc has been and still is raising the standard of living of the population by increasing the availability of textiles while meeting the military and industrial demands. In recent years, another problem has appeared in the foreground -- that of attaining self-sufficiency not only in raw materials but also in processing capacities.

II. Historical Development.

The development of the textile industry in the Soviet Bloc countries before World War II more or less paralleled the general economic activity in each country. Varying degrees of development, as measured by per capita availability of specified fibers, existed in the individual countries. East Germany was in a somewhat more favorable position than Denmark. Czechoslovakia was about equal to the Netherlands. Bulgaria, Poland, and Rumania were on levels similar to that of Italy. The per capita availability of fibers in Hungary, the USSR, and Communist China, however, was decidedly below those of Western European countries. The estimated prewar per capita availability of cotton, wool, and rayon fibers in Soviet Bloc countries compared with that in selected European countries is shown in Table 1.* 1/**

The level of prewar textile activity attained by European Satellites was limited only by the normal economic deterrents to expansion. Raw fiber needs and textile-processing equipment were largely supplied through imports, limited only by the existing fiscal policies and the ability of a country to pay for increased purchases.

One outstanding development, occurring during the late 1930's, was the trend noted in all present Satellite countries to establish a processing industry adequate to the purchasing ability of the consumer. Efforts were made, therefore, to reduce imports of finished textile products and promote the expansion of a domestic textile industry.

* Table 1 follows on p. 6.

** Footnote references in arabic numerals are to sources listed in Appendix F.

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Table 1

Estimated Prewar Per Capita Availability
of Cotton, Wool, and Rayon Fibers in Soviet Bloc Countries
Compared with That in Selected European Countries a/

	<u>Kilograms per Capita</u>
USSR	3.7
Communist China	1.65
Bulgaria	4.5
Czechoslovakia	5.08
East Germany	7.36
Hungary	3.75
Poland	4.41
Rumania	4.07
Belgium	9.27
Denmark	7.15
France	6.98
Germany	8.30
Italy	4.15
Netherlands	5.58
UK	11.17

a. Estimates are of fiber availability and do not measure the quality or exact quantity of textile output. For Soviet Bloc countries, peasant homespun clothes are included in fiber consumption.

The success of this program was most apparent in the more advanced economies of Czechoslovakia and Poland. Czechoslovakia was the only country, however, that developed a processing industry which was able to produce quantities of finished textiles for export.

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In the USSR, the textile situation during the late 1930's gave promise of definite improvements which did not materialize because of the advent of World War II. Following the set pattern of a planned economy, the initial stage of development was the establishment of a strong fiber base with ultimate aims towards self-sufficiency, although at a low per capita level. Beginning with the Third Five Year Plan the secondary phase of expanding the textile machine building industry was undertaken, but little progress in this direction had been made before World War II.

The failure of the USSR to attain a higher degree of textile activity in prewar years was caused mainly by the combined policies of overextending heavy industrial investments and by the agricultural collectivization program. Both programs deferred consumer expansion; the necessary economic inputs needed by the consumer industries depended on the productive resources of agriculture for raw materials and on light machine building industries for equipment.

Resulting weaknesses, therefore, were apparent in the shortages and low quality of wool and flax and the continued disproportion of operable equipment used in processing -- for example, the ratio of spindles to looms -- which precluded rapid development. In addition, the poor quality of finished products and inadequate distribution channels were continual bottlenecks working unfavorably from the standpoint of the consumer.

The prewar developments made by China in the textile processing field were mainly the result of heavy investments of capital by both England and Japan. Although raw material resources and labor were adequate for a rapid expansion of domestically owned mills, the unstable political conditions and poor management left the rate of expansion to be guided by foreign investments.

The war and the accompanying destruction considerably reduced the prewar gains of all countries now constituting the Soviet Bloc and relegated the consumer's position to a standard much below the low prewar level.

During the 1941-45 period, textile production was geared to supply military needs, and because normal raw material imports were cut off, manufactured textiles were severely rationed. The effects of rationing in the European Satellites and the USSR were more severe than they were in West Germany, for synthetic production

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in the Soviet Bloc countries (prewar boundaries) had not progressed to that degree of success achieved by the occupying power nor had the farsightedness to build large stockpiles been apparent.

Concomitant with raw material shortages, the textile industry of the Soviet Bloc countries suffered from heavy destruction of equipment during the early stages of the war, and the impact of this destruction affected wartime mobilization capabilities and carried its effects into the postwar reconstruction period.*

Tangible evidence of textiles and textile raw material deficiencies, as related to military and industrial needs, can be detected from the imports by the USSR under lend-lease agreements for wool, wool fabrics, and industrial cotton fabrics.** Such weakness serves to emphasize the need for establishing a stronger textile fiber base and processing industry within the present Soviet Bloc countries in order to prepare for future emergencies.

The postwar aftermath found all Soviet Bloc countries in a deficit position of textile fiber and processing needs. During the period of initial recovery (1945-47), only through the aid of UNRRA and sterling loans were the Satellite countries and China able to regain a working inventory of fibers for the redevelopment and expansion program later associated with planned socialist accomplishments.

* Losses of equipment in the USSR reportedly amounted to 1,763,200 spindles, 30,300 looms, 19.4 percent of the spindles and 13.3 percent of the looms. Losses in Poland reportedly amounted to 779,000 spindles and 4,000 looms. Losses in Hungary reportedly amounted to 160,000 spindles.

** Lend-Lease shipments from the US (1942-45) of woolens and worsted (metric tons):

<u>1942</u>	<u>1943</u>	<u>1944</u>	<u>1945</u>
2,400	13,600	20,600	7,500

Total textiles imports (1941-45):

Cotton cloth	-	106,893,000 yards
Woolen cloth	-	62,485,000 yards
Webbing	-	55,843,000 yards
Tarpaulin	-	13,432,000 yards

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Since 1948 the pattern of development has been similar in all Soviet Bloc countries. Expansions have been limited primarily to available raw material produced within the Bloc, keeping imports to bare minimum requirements. The economic concept was to profess attainment of self-sufficiency in raw fiber needs and maximize the use of existing equipment.

The failure of this program became evident in 1953 both in the inability to provide a strong fiber base and to replace equipment by reinvestment. The new program recognizes existing weaknesses, and the Soviet Bloc countries have been forced to turn to the Free World markets as a means of filling existing gaps in supplying consumer requirements.

Although no definite consumer emphasis program has been initiated in Communist China, the continuing efforts to raise production levels by maximizing the potential of artisan industries indicates a weakness in the textile machine building capacities. If expansion in Communist China is to continue, non-Bloc support will be required to supply necessary equipment.

III. Organizational Structure.

The organizational structure of the textile industry in each country of the Soviet Bloc generally follows that of the USSR. Variations that exist appear to result more from economic capabilities than from independent variations in policy.

Control over production factors in the textile industry has been directed through the Ministry of Light Industry in the USSR and the European Satellites. Recent administrative changes in the USSR, however, have had the effect of transferring the functions of the former Ministry of Light Industry to the newly created Ministry of Industrial Consumer Goods. Such reorganizations in the top echelons of light industry are frequent, and usually may be associated with avowed intentions to improve the position of the consumer.

A problem confronting every country in the Soviet Bloc is reducing the diversity of the industry to compact working units in order to maintain effective control over operations and distribution. In the USSR, the subordination of textile production to government control has been effectively regulated by merging the large and medium-size mills into national and republic enterprises and consolidating former private and small-scale artisans into local and

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industrial cooperative units. The cooperatives, however, still remain an important segment of some phases of the textile industry.* 2/ Cooperative production is usually funneled directly to satisfy local demands. As a result, during periods of emphasis, cooperatives assume an important role in the plans for over-all national production. 3/

Upon assuming control in the European Satellites, the Communists issued decrees nationalizing the textile industries. This action immediately gave the Communists control over most of the production and distribution of textile products. By extending regulation to imports, the flow of available supplies was directed to the nationalized sectors, while the small-scale artisans and the few remaining private operators were forced to liquidate their assets or merge into the cooperative movement. The situation in Communist China is somewhat parallel to that in the European Satellites. Although no nationalization decree has been announced, control over private industry has been effected by high taxes and rigid allocation of raw materials, which eventually will force liquidation. The new decrees in the USSR and the European Satellites and the current program in Communist China, however, place considerable importance on production gains and greater utilization of the capacities of small-scale local cooperatives and artisans. 4/ Recent decrees calling for maximum output and emphasizing the expansion of consumer outlets through cooperatives and artisans indicate awareness of idle reserves and processing capacity. Success of the program will depend on the ability to supply adequate raw material to all segments of the industry in quantities regulated only by processing capacity and not by indigenous production of fibers.

IV. Supply of Textile Fibers.

A. Availability of Raw Materials.

During the postwar years the development and level of activity of the textile industry in the Soviet Bloc has been premised on the attainment of fiber self-sufficiency within its boundaries with a minimum expenditure channeled for import needs. Textile output has,

* Local cooperatives in the USSR were reported to have produced about 40 percent of knitted outerwear and 35 percent of clothing in 1952.

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therefore, been geared to the indigenous production of natural fibers, (cotton, wool, silk, and flax) and to the utilization priority of chemicals and other raw materials needed to develop a synthetic fiber industry.

The initial self-sufficiency goals were set forth in the successive Five Year Plans of the USSR, and the concept was carried into the postwar period of Communist expansion.

After 1948, major policy changes designed to increase textile fiber production within the Soviet Bloc were noted in all of the plans of individual Soviet Bloc countries. Emphasis was centered on cotton and wool, the major apparel type fibers, and -- to a lesser degree -- on flax. Synthetic fiber goals were outlined, but the rate of planned expansion in synthetics has been controlled by the competing demands of chemicals and by investments for other high-priority industries.

Soviet Bloc programs for self-sufficiency in fiber raw materials, however, had to contend with soil and climatic conditions, which are limiting factors in the production of various fiber crops, as well as with the availability of chemicals and investments to be allocated to the synthetic fiber industry. Individual country self-sufficiency was not feasible, although efforts in this direction have been made -- for example, the growing of cotton in Hungary and Rumania. The unequal relationship between fiber production and individual country processing capacity, placed a heavy burden on the USSR for raw material supplies. Beginning in 1950, contributions of Communist China (especially wool and silk) began to relieve the shortage situation. ^{5/} Current information also indicates the possibility that a larger share of future cotton supplies needed by the European Satellites may be filled by China. ^{6/}

The estimated production and percent distribution of fiber production in the Soviet Bloc for 1950, 1953, and 1955 are shown in Table 2.* For the most recent full year (1953) the figures show that the European Satellites produced 78.6 percent of all synthetic fibers in the Bloc, but only 1.1 percent of the cotton, 19.8 percent of the wool, and 12.4 percent of the flax. Silk production in this area was negligible. The USSR and China, on the other hand, produced 98.9 percent of the cotton, 80.3 percent of the wool, 87.5 percent of the flax, and 97 percent of the silk. Production of synthetic fibers, however, contributed only 21.4 percent of total Bloc production in these countries.**

* Table 2 follows on p. 12.

** Continued on p. 15.

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Table 2

Estimated Production and Percent Distribution of Fibers
in the Soviet Bloc a/*
1950, 1953, and 1955

	Cotton b/			Wool c/			Flax d/			Silk e/			Synthetics f/		
	1950	1953	1955	1950	1953	1955	1950	1953	1955	1950	1953	1955	1950	1953	1955
USSR (Thousand Metric Tons)	1,140	1,300	1,400	100.6	114.5	125.2	540.0	500.0	600.0	1.5	1.7	1.9	34.0	44.8	60.0
(Percent)	67.6	64.3	64.2	68.4	69.0	69.3	87.5	86.0	87.7	24.6	25.8	27.1	19.4	21.4	24.3
Communist China															
(Thousand Metric Tons)	529.0	700	750.0	18.7	18.7	18.7	9.0	9.0	9.0	4.5	4.7	4.9	Negligible	Negligible	Negligible
(Percent)	31.4	34.6	34.4	12.7	11.2	10.4	1.5	1.5	1.3	73.8	71.2	70.0			
Albania															
(Thousand Metric Tons)	0.6	1.3	1.5	1.21	1.26	1.47	Negligible	Negligible	Negligible	Negligible	Negligible	4.9	0.0	0.0	0.0
(Percent)	0.04	0.06	0.07	0.8	0.17	0.7									
Bulgaria															
(Thousand Metric Tons)	8.1	14.0	18.0	8.3	8.56	9.2	0.7	0.7	0.7	0.1	0.2	0.2	Negligible	Negligible	Negligible
(Percent)	3.5	0.7	0.82	5.6	5.2	5.1	0.1	0.1	0.1	1.6	3.0	2.9			
Czechoslovakia															
(Thousand Metric Tons)	0.0	0.0	0.0	0.7	0.8	0.8	12.0	12.6	13.4	Negligible	Negligible	Negligible	25.9	34.2	34.2
(Percent)				0.5	0.5	0.4	1.9	2.2	2.0				14.8	16.3	13.9

* Footnotes for Table 2 follow on p. 14.

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Table 2
Estimated Production and Percent Distribution of Fibers
in the Soviet Bloc a/
1950, 1953, and 1955
(Continued)

	Cotton b/			Wool c/			Flax d/			Silk e/			Synthetics f/		
	1950	1953	1955	1950	1953	1955	1950	1953	1955	1950	1953	1955	1950	1953	1955
East Germany (Thousand Metric Tons) (Percent)	0.0	0.0	0.0	1.4 1.0	2.3 1.4	2.8 1.6	8.0 1.3	8.0 1.4	8.0 1.2	Negligible	Negligible	Negligible	94.86 54.2	103.2 49.3	118.8 48.1
Hungary (Thousand Metric Tons) (Percent)	0.970 0.06	0.8 0.04	2.4 0.11	1.3 1.0	2.6 1.6	3.6 2.0	3.9 0.6	3.9 0.7	3.9 0.6	Negligible	Negligible	Negligible	1.3 0.7	1.9 0.9	2.3 0.9
Poland (Thousand Metric Tons) (Percent)	0.0	0.0	0.0	1.4 1.0	2.3 1.4	2.8 1.6	38.1 6.2	41.0 7.0	41.0 6.0	Negligible	Negligible	Negligible	17.5 10.0	23.8 11.4	30.0 12.2
Rumania (Thousand Metric Tons) (Percent)	6.0 0.4	5.0 0.3	7.5 0.4	13.5 9.2	14.9 9.0	16.0 8.9	5.4 0.9	6.4 1.1	8.0 1.2	Negligible	Negligible	Negligible	1.5 0.9	1.5 0.7	1.5 0.6
Total (Thousand Metric Tons) (Percent)	1,684.7 100.0	2,021.1 100.0	2,179.4 100.0	147.1 100.0	165.9 100.0	180.6 100.0	617.1 100.0	581.6 100.0	684.0 100.0	6.1 100.0	6.6 100.0	7.0 100.0	175.1 100.0	209.4 100.0	246.8 100.0

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Table 2

Estimated Production and Percent Distribution of Fibers
in the Soviet Bloc a/
1950, 1953, and 1955
(Continued)

- a. For methodology, see Appendix D.
- b. Ginned basis.
- c. Clean basis with additions for waste.
- d. Scutched basis.
- e. Raw basis.
- f. Including staple and filament yarn of rayon and polymer fibers.

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From the projected 1955 estimates, it is evident that, except for synthetic production, the future contribution of the European Satellites to Bloc fiber self-sufficiency will be limited. If the Bloc is to attain fiber self-sufficiency, efforts must be focused on the main producing areas, the USSR and Communist China. Estimated fiber self-sufficiency of the Soviet Bloc in 1950-53 and 1955 is shown in Table 3.* Consumption figures in Table 3 include materials consumed by home industries as well as total mill consumption. The ratio of self-sufficiency is the percentage relationship of domestic production to total consumption at current levels. Table 3 shows the Bloc in 1950 had attained a self-sufficiency of 104 percent. By 1953 it had increased to about 107 percent. On the basis of announced intentions, projections to 1955 indicate a self-sufficiency of 107 percent, indicating a rate of growth at least adequate to meet increased consumption.

A comparison of estimated Bloc fiber production with total utilization and mill utilization in 1955 is shown in Table 4.**

The higher rate of mill self-sufficiency shown in Table 4, as compared with total self-sufficiency, however, shows that if the assumption is made that during periods of emergency all fibers produced in the Bloc countries would be processed by the government (eliminating that part of fiber production which is presently not collected by the government and is used by peasants for home spun yarns), the Bloc could be self-sufficient -- but at a per capita level even lower than present standards.

Differences in the degree of mill self-sufficiency compared with total self-sufficiency are minor for most individual fibers except flax, which shows a level of mill self-sufficiency almost three times as high as that of total self-sufficiency. The low mill utilization of flax is related to both its use pattern and the limited processing capacities presently available in the Bloc. As for the utilization of flax for apparel, the volume by weight is considerably reduced by the percentage of line fiber to tow (or the relationship of long spinnable fiber for fine goods to the short coarse fiber used for sacks and ropes). In addition, the cost for preliminary processing is considerably greater than that of other fibers.***

* Table 3 follows on p. 16.

** Table 4 follows on p. 18.

*** Continued on p. 19.

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Table 3

Estimated Textile Fiber Self-Sufficiency
of the Soviet Bloc
1950-53 and 1955 a/*

	<u>1950</u>	<u>1951</u>	<u>1952</u>	<u>1953</u>	<u>1955</u>
Cotton Production (Thousand Metric Tons)	1,685.0	1,876.0	1,867	2,021	2,179
Total Cotton Consumption (Thousand Metric Tons)	1,604.0	1,590	1,741	1,794	1,940
Cotton Mill Consumption (Thousand Metric Tons)	1,434	1,430	1,581	1,634	1,790
Percent Self-sufficiency	105	118	107	113	112
Wool Production (Thousand Metric Tons)	147	152	157	166	180
Total Wool Consumption (Thousand Metric Tons)	173	184	191	207	219
Wool Mill Consumption (Thousand Metric Tons)	149	160	169	185	197
Percent Self-sufficiency	85	83	82	80	82
Flax Production (Thousand Metric Tons)	617	576	577	582	684.0
Total Flax Consumption (Thousand Metric Tons)	617	576	577	582	684.0
Flax Mill Consumption (Thousand Metric Tons)	187	203	206	210	232
Percent Self-sufficiency	100	100	100	100	100.0
Synthetic Production (Thousand Metric Tons)	175	186	208	219	246
Total Synthetic Consumption (Thousand Metric Tons)	185	198	210	221	243
Synthetic Mill Consumption (Thousand Metric Tons)	185	198	210	221.4	243
Percent Self-sufficiency	95	94	99	99	101

* Footnote for Table 3 follows on p. 17.

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Table 3

Estimated Textile Fiber Self-Sufficiency
of the Soviet Bloc
1950-53 and 1955 a/
(Continued)

	<u>1950</u>	<u>1951</u>	<u>1952</u>	<u>1953</u>	<u>1955</u>
Silk Production (Thousand Metric Tons)	6.1	6.1	6.4	6.6	7.0
Total Silk Consumption (Thousand Metric Tons)	5.0	5.6	5.9	6.6	7.0
Silk Mill Consumption (Thousand Metric Tons)	4.6	5.2	5.5	6.2	7.0
Total Fiber Production (Thousand Metric Tons)	2,630.1	2,796.1	2,815.4	2,994.6	3,296.0
Total Fiber Consumption (Thousand Metric Tons)	2,584.1	2,553.6	2,724.9	2,809.6	3,093.0
Total Fiber Mill Consumption (Thousand Metric Tons)	1,959.6	1,996.2	2,171.5	2,256.6	2,469.0
Percent Self-sufficiency	104	109	103	107	107

a. The relationship of indigenous production to total consumption. Total consumption includes all fiber produced by the government and imports used for the production of yarn in textile mills in addition to quantities retained by peasants for home spun yarns. (For methodology, see Appendix D.)

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Table 4

Comparison of Estimated Fiber Production
with Total Utilization and Mill Utilization
in the Soviet Bloc a/
1955

	<u>Soviet Bloc Production</u>	<u>Total Soviet Bloc Utilization</u>	<u>Soviet Bloc Mill Utilization</u>
Cotton			
(Thousand Metric Tons)	2,179.4	1,940.0	1,790.0
(Percent Self-sufficiency)		112.3	121.7
Wool			
(Thousand Metric Tons)	180.0	219.0	197.0
(Percent Self-sufficiency)		82.4	91.6
Flax			
(Thousand Metric Tons)	684.0	684.0	232.0
(Percent Self-sufficiency)		100.0	294.6
Synthetics			
(Thousand Metric Tons)	246.0	243.0	243.0
(Percent Self-sufficiency)		101.2	101.2
Silk			
(Thousand Metric Tons)	7.0	7.0	7.0
(Percent Self-sufficiency)		100.0	100.0
Total Fibers			
(Thousand Metric Tons)	3,296.0	3,093.0	2,469.0
(Percent Self-sufficiency)		106.5	133.4

a. For methodology, see Appendix D.

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The available unprocessed reserve of flax does, however, leave an untapped potential, which could find mass mill utilization if adequate processing capacities become available.

Distribution of mill utilization of selected fibers in the Soviet Bloc and the US in 1950-53 and 1955 is shown in Table 5.* The percentage distribution emphasizes the significance of cotton as the primary raw material source and the position of synthetic fiber development in both the Soviet Bloc and the US.

In 1952 the percent mill utilization of cotton in the Soviet Bloc represented approximately 72.1 percent of all fibers processed by the textile industry; for the US the percentage was 69.6 percent. Rayon and synthetic mill fiber utilization by the Bloc for the same period, however, amounted to only an estimated 9.6 percent, compared with the US percentage mill utilization of 22.9 percent.

Per capita total utilization of selected fibers in the Soviet Bloc and in the US, 1950-53 and 1955 is shown in Table 6.** The table shows Bloc fiber per capita availabilities in terms of the present and future total utilization. Apart from the significant difference noted in the 1952 comparable per capita availabilities -- 3.56 kilograms for the Bloc against 18.4 kilograms for the US -- the higher US rate has been continuous for more than 60 years; but even an optimistic prediction for the Bloc countries does not anticipate the attainment of a similar level in this century. A higher ratio of per capita availabilities exists in individual countries, but because future fiber requirements for increasing the present individual country per capita rate are tied in closely with Bloc fiber potential, the assumption is that per capita increases in high-consuming but low-producing countries will be gauged to population gains. Total Bloc per capita increases, therefore, will tend to reflect a more equal distribution among all countries.

Tables 1 through 6 have been compiled in order to gain a clear perspective of the production and supply resources within the Bloc and can be used as a measure to approximate Bloc reliance on Free World resources by 1955. Although it is impossible to measure statistically the quality of output, it is important to note that at present wool fabrics are augmented by blending with cotton, rags,***

* Table 5 follows on p. 20.

** Table 6 follows on p. 21.

*** Continued on p. 22.

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Table 5

Distribution of Mill Utilization of Selected Fibers
in the Soviet Bloc and the US 7/
1950-53 and 1955

	1950		1951		1952		1953		1955	
	Soviet Bloc	US	Soviet Bloc	US	Soviet Bloc	US	Soviet Bloc	US	Soviet Bloc	US
Cotton	72.5	68.5	70.9	70.9	72.1	69.6	71.9	N.A.	72.0	N.A.
Wool	8.4	9.3	8.8	7.1	8.6	7.2	8.9	N.A.	8.6	N.A.
Flax	9.5	0.2	10.1	0.2	9.4	0.1	9.2	N.A.	9.3	N.A.
Rayon	9.4	19.7	9.8	18.6	9.6	18.9	9.7	N.A.	9.8	N.A.
Other Man-Made	a/	2.1	a/	3.1	a/	4.0	a/	N.A.	a/	N.A.
Synthetics	0.2	0.2	0.3	0.1	0.3	0.2	0.3	N.A.	0.3	N.A.
Silk										
Total	100.0	100.0	99.9	100.0	100	100	100	N.A.	100	N.A.

a. Included with rayon.

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Table 6

Per Capita Total Utilization of Selected Fibers
in the Soviet Bloc and the US 8/
1950-53 and 1955

	Kilograms Per Capita					
	1950		1951		1952	
	Soviet Bloc	US	Soviet Bloc	US	Soviet Bloc	US
Cotton	2.08	13.8	2.05	14.05	2.23	12.8
Wool	0.22	1.87	0.24	1.4	0.25	1.33
Flax	0.8	0.03	0.7	0.03	0.8	0.02
Rayon	0.24	3.98	0.26	3.70	0.27	3.46
Other Man-Made Synthetics	a/ 0.006	0.4 0.03	a/ 0.007	0.6 0.02	a/ 0.007	0.73 0.03
Silk					-a/ 0.008	N.A. 0.02
Total	3.35	19.75	3.26	19.80	3.46	18.37
					3.56	18.62
						3.9
						N.A.

a. Included with rayon.

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and synthetics, and that such practices are expected to continue through 1955. The effects of extending fibers will mean that little improvement in the over-all quality of output can be expected by 1955.

B. Trade in Textile Fibers.

Despite planned efforts to attain a self-sufficiency status in textile raw materials, the countries of the Soviet Bloc have continued to import raw material supplies from non-Bloc sources in order to supplement normal domestic supply. The shortages are most marked in quality cotton and wool, both of which are not now produced in adequate quantities within the Bloc.

The pattern of postwar trade trends compared to prewar trends shows the impact of Soviet Bloc efforts to attain a position of fiber self-sufficiency. During the prewar period, all cotton and wool imports by the countries which are now the European Satellites and by Communist China were supplied by the non-Bloc world. The USSR itself was a net importer of wool at a rate estimated at about 8 percent of average annual (1934-38) production. 9/

Since 1948 the European Satellites have considerably reduced the volume of non-Bloc imports and have relied heavily on raw material imports from the USSR to replace former imports from the non-Bloc countries. In an apparent effort to extend supplies, Moscow counteracted external trade decreases by curtailing textile output in the formerly high-consuming countries of Czechoslovakia and East Germany. 10/ By rationing available supplies over domestic mill capabilities the USSR was able to fill the minimum needs of all Eastern European Satellites in spite of reduced imports from non-Bloc countries. Output of textile production in the European Satellites and the USSR was therefore maintained by extending available fiber supplies (by lowering quality and using greater proportions of rags and waste) and by fully utilizing accumulated stocks acquired by some of the Satellites in the early postwar years. 11/

The addition of fairly large wool stocks held by Communist China in 1950,* 12/ and apparent annual production gains of cotton in the USSR over prewar have further enabled the Bloc to increase textile output in spite of reduced imports from non-Bloc countries.

* The Chinese Communist government controlled 24,000 tons (grease basis) of wool in 1950. The quality of stock, however, was reportedly poor.

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By 1953 the loss of quality materials, linked with the apparent low level of operating stocks, has transcended the restricted trade policy of 1948, with the result that the estimated 1953-54 imports, especially of wool, are expected to be the highest since 1948.

Estimated Soviet Bloc imports from the Free World, 1948-49 through 1953-54, are shown in Table 7.* Cotton imports range from a high of 259,000 tons in 1948 to a low of 83,000 tons in 1950. During the 1950-54 period imports have averaged approximately 120,000 tons a year. The higher volume of imports for 1948 and 1949 was the result of heavy Chinese imports, and the low of 1950 is partially explained by the low world stocks existing at that time and by the inflated prices associated with the Korean War. Further cause for the low 1950 level was the result of the embargo placed on US cotton shipments to China. The percentage ratio of imports to total estimated utilization approximated 6.5 percent for 1952-53 and 1953-54, with little change expected in succeeding years.

Until 1953, wool imports followed a pattern similar to that of cotton imports. In the early postwar years the high rate of imports of 26,000 and 24,000 tons for 1948 and 1949, respectively, were motivated by low operating stocks and the fact that sterling credits were extended to both Poland and Czechoslovakia by the Commonwealth countries for purchases of wool. The decline in 1950 through 1953 may be explained by the sudden rise in price after the advent of the Korean war and the addition of Chinese Communist wool supplies. The rise precipitated in 1953 has probably been motivated by the consumer textile expansion programs within the Bloc and the need to augment domestic supplies of quality wool with non-Bloc supplies. The proportion of imports in estimated total utilization shows a significant rise in 1953 over 1952 -- 12.3 percent against 6.8 percent -- and it is expected to remain at a high level up through 1955.

Rayon supplies for 1950 through 1953 are estimated to range from 10,000 tons in 1950 to 12,000 tons in 1953. The volume of imports in quantity appears to be stable, but the percentage comparison of volume of imports to total utilization shows a declining trend, probably explained by the increase in total synthetic production since 1950.

* Table 7 follows on p. 24.

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Table 7

Estimated Soviet Bloc Imports of Selected Fibers
from the Free World a/
1948-54

	<u>1948-49</u>	<u>1949-50</u>	<u>1950-51</u>	<u>1951-52</u>	<u>1952-53</u>	<u>1953-54</u>
Cotton Imports						
(Thousand Metric Tons) <u>13/</u>	259.0	217.0	83.0	134.4	113.9	115.0
Total Cotton Utilization						
(Thousand Metric Tons)	N.A.	N.A.	1,604.0	1,590.1	1,741.0	1,793.7
Percent Imports of Utilization	N.A.	N.A.	5.2	8.5	6.5	6.4
Wool Imports						
(Clean Basis)						
(Thousand Metric Tons) <u>14/</u>	26.1	24.1	17.0	15.0	13.1	25.0
Total Wool Utilization						
(Thousand Metric Tons)	N.A.	N.A.	172.9	184.2	191.2	207.4
Percent Imports of Utilization	N.A.	N.A.	9.8	8.1	6.8	12.3
Rayon Imports						
(Thousand Metric Tons) <u>15/</u>	N.A.	N.A.	10.0	12.0	12.0	12.0
Total Synthetic Utilization						
(Thousand Metric Tons)	N.A.	N.A.	185.1	198.7	210.8	221.4
Percent Imports of Utilization	N.A.	N.A.	5.4	6.0	5.7	5.4

a. Trade data have been compiled on a consumption year basis, but for purposes of comparison it has been assumed that the annual trade year data would be similar. The projected trade data have been based on preliminary data and reported trade agreements.

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V. Textile Production and Processing Capacities.

The development and expansion of the Soviet Bloc textile industry in the postwar period has been marked not only by raw material deficiencies, but also by the low rate of capital investment allocated for replacing machinery, plants, and auxiliary equipment destroyed during the war.

Even in the prewar years the rate of investment was considerably less than that of the more advanced Western European countries, and in some of the lesser developed countries (the Balkans and China) investments were dependent on foreign capital. In the USSR more concerted efforts were made after 1937 to establish a stronger domestic textile machine building industry, but time limitations and war demands narrowed the projected goals, with the carryover effect of limiting postwar Bloc capabilities.

The heavy wartime losses of plants and equipment further intensified the need for Soviet Bloc investments during the postwar period. Although planned programs by the USSR (1946-50) and the European Satelllites indicated an awareness of existing deficiencies in raw material and equipment inventory needs,* 16/ capital investment was inadequate to meet the requirements for postwar expansion.

The results are apparent in the slow rate of recovery during the 1946-50 period, indicating probable restraints on capital investment and the diversion of resources (foreign and domestic capital) to heavy industry and military needs.

* In the USSR, total growth of production capacity during 1946-50 was planned to expand by 1,892,000 cotton spindles, 33,000 cotton looms, 158,100 woolen spindles, 3,700 woolen looms, 81,500 linen spindles, 1,860 linen looms, and 5,100 silk looms.

The Czechoslovak Five Year Plan (1949-53) provided for an investment of 8,450,000 crowns to be used primarily for maintaining plants and equipment and for carrying out a modernization program.

The First Three Year Plan for Hungary (1948-50) indicated planned investments of 86.2 million forints, of which 98 percent was to be used to increase the capacity of spinning mills by 120,000 spindles.

The Investment Plan for Poland in 1946 provided for the renovation of 602,000 spindles at a cost of 351 million zloty (\$3,150,000), 4,420 looms costing 22 million zloty (\$220,000), and 450,000 zloty (\$4.5 million) for new spinning mills.

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During the postwar years in Communist China, the replacement of wartime losses of equipment and the development of raw material production were restricted considerably by the civil war. Foreign investments needed for promoting a program of expansion were therefore seriously curtailed.

It is believed that because the supply of looms in the Soviet Bloc is more than adequate, relative to the number of spindles, the supply of spindles would be an indicator of the processing capacity in the various Bloc countries. By 1953 the total number of spindles in the USSR exceeded the prewar level by about 12.5 percent. Only flax spindles had not regained the prewar level, and they are still about 20 percent below prewar. The number of spindles in two of the major textile-producing countries in the European Satellites in 1953 was still below the prewar level -- spindles in Czechoslovakia were about 41 percent below prewar, and in Poland they were about 37.5 percent below.

In the other European Satellites the relationship of the prewar spindle supply to that of 1953 was as follows: Hungary, 5 percent below prewar; Bulgaria, 91.8 percent above prewar; and Rumania, 30 percent above. Prewar information on spindle numbers is not available for Albania and East Germany. East Germany, however, has increased spindle numbers by about 3.4 percent since 1947. For all European Satellites for which prewar spindle numbers are available, the 1953 spindle numbers were about 32 percent below the prewar level. In 1953 the number of cotton spindles in Communist China exceeded the prewar level by about 1.2 percent. For the Bloc as a whole, spindle numbers in 1953 were about 6.2 percent below the prewar level, which is a rough measure of the relative prewar and postwar investment in spindles and also may be taken as an estimate of comparative processing capacities during these periods. Estimated inventories of textile equipment in the Soviet Bloc for selected prewar and postwar years are shown in Table 8.*

* Table 8 follows on p. 27.

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Table 8

Estimated Inventories of Textile Equipment
in the Soviet Bloc
Selected Prewar and Postwar Years

	Year	Cotton Spindles	Cotton Looms	Wool Spindles	Wool Looms	Flax Spindles	Flax Looms	Silk Looms
<u>USSR 18/</u>	1940	8,296,000	200,600	382,000	12,300	423,000	13,000	6,337
	1948 <u>a</u> /*	7,300,000	190,000	368,000	12,700	362,000	12,000	N.A.
	1950 <u>a</u> /	7,950,000	210,000	428,000	14,700	382,000	12,000	12,000
	1953 <u>a</u> /	9,300,000	250,000	538,000	15,700	402,000	13,000	20,000
<u>Communist China 19/</u>	1937	5,041,900	57,809	N.A.	N.A.	N.A.	N.A.	N.A.
	1948	4,500,000	65,000	N.A.	N.A.	N.A.	N.A.	N.A.
	1950	4,500,000	65,000	149,000	2,100	N.A.	N.A.	18,400
	1953	5,100,000	78,000	149,000	2,100	N.A.	N.A.	18,400
<u>Albania 20/</u>	1940	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
	1950	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
	1953	21,000	1,200	N.A.	N.A.	N.A.	N.A.	N.A.
<u>Bulgaria 21/</u>	1939	130,000	4,000	55,000	1,300	N.A.	N.A.	N.A.
	1950	230,000	7,000	55,000	2,500	2,500	N.A.	N.A.
	1953	300,000	7,000	55,000	2,500	2,500	N.A.	N.A.
<u>Czechoslovakia 22/</u>	1939	3,762,000	120,000	1,046,000	19,300	282,000	15,000	N.A.
	1948	2,172,000	60,000	675,000	11,600	162,000	11,300	11,000
	1950	2,172,000	60,000	675,000	11,600	162,000	11,300	11,000
	1953	2,172,000	60,000	675,000	11,600	162,000	11,300	11,000

* Footnote for Table 8 follows on p. 28.

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Table 8

Estimated Inventories of Textile Equipment
in the Soviet Bloc
Selected Prewar and Postwar Years
(Continued)

	Year	Cotton		Wool		Flax		Silk	
		Spindles	Looms	Spindles	Looms	Spindles	Looms	Looms	Looms
East Germany 23/	1939	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
	1947	1,334,900	30,000	1,276,000	27,500	N.A.	6,300	2,800	2,800
	1950	1,334,900	30,000	1,276,000	27,500	N.A.	6,300	2,800	2,800
	1953	1,400,000	30,000	1,300,000	27,500	N.A.	6,300	2,800	2,800
Hungary 24/	1940	340,800	14,500	102,800	2,200	20,000	1,720	2,400	2,400
	1947	290,800	14,500	102,000	2,200	20,000	1,700	2,400	2,400
	1950	320,000	15,500	102,000	2,200	20,000	1,700	2,400	2,400
	1953	320,000	15,500	102,000	2,200	20,000	1,700	2,400	2,400
Poland 25/	1937	1,925,000	46,200	826,000	11,500	43,000	2,100	2,400	2,400
	1948	1,286,000	35,500	195,000	5,900	N.A.	N.A.	6,100	6,100
	1950	1,400,000	36,000	214,000	6,100	N.A.	N.A.	6,100	6,100
	1953 a/	1,500,000	37,000	220,000	6,200	N.A.	N.A.	6,100	6,100
Rumania 26/	1939	250,500	14,500	96,000	4,300	N.A.	N.A.	1,900	1,900
	1946	295,000	15,000	135,000	2,600	14,200	N.A.	2,700	2,700
	1950	315,000	15,000	135,000	2,600	14,200	N.A.	2,700	2,700
	1953	315,000	15,000	135,000	2,600	14,200	N.A.	2,700	2,700

a. For methodology, see Appendix D.

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It is believed that the ratio of spindles to looms in the Soviet Bloc is such that spindles are required to operate at full capacity while looms operate considerably below capacity.* This unbalanced relationship has become more acute in the postwar period because of war damage and the division of territories within the Bloc. It is likely that current investment programs in the Bloc textile industry will attempt to add the needed spindles to obtain the proper balance between spindles and looms.

The total Soviet Bloc textile production, measured against inventory gains from early postwar years to 1950, shows that the estimated 1948 cloth output had reached only 78 percent of the prewar level and inventories of equipment were considerably below prewar. By 1950 the relationship was much closer to the prewar balance. Textile output in 1950, in terms of cloth, is estimated at 7,279.1 million linear meters against the prewar estimate of 7,206.6 million linear meters, despite the fact that 1950 equipment inventories were still apparently less than prewar. Increased textile production was possible, however, because of the apparent sacrifice in quality, and through the extension of the work shift from a single- and 2-shift basis to a 3-shift basis in 1950. ^{17/} Textile production in the Soviet Bloc (in terms of cloth), prewar, 1948, 1950, 1953, and estimated 1955, is shown in Table 9.**

Because the estimated raw material availabilities in the Soviet Bloc for 1950 were greater than the computed mill utilization*** the investments in terms of equipment undoubtedly acted as a contributing factor to the slow rate of increase in textile production during the 1946-50 period. ^{27/}

* The relationship of spindles to looms is a direct measure of potential cloth output. In the USSR the 1940 ratio of 41.3 cotton spindles to 1 loom was considerably lower than the comparable US average of 53.6 spindles to 1 loom, and accounted for the reported planned difference in operating time of weaving mills to spinning mills. The 1950 ratio in the USSR has been estimated to be less than the 1940 ratio -- 37.8 spindles to 1 loom.

** Table 9 follows on p. 30.

*** Mill utilization of fibers in the Soviet Bloc has been computed to be 1,959,600 tons, whereas total fiber production for 1950 has been estimated at 2,403,100 tons.

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Table 9

Textile Production in the Soviet Bloc a/
Prewar, 1948, 1950, 1953, and Estimated 1955

Year	Million Linear Meters of Cloth									
	USSR	Communist China	Albania	Bulgaria	Czecho- slovakia	East Germany	Hungary	Poland	Rumania	Total Bloc
Prewar	4,276.0	1,219.0	N.A.	43.1	466.0	400.0	207.5	466.5	128.5	7,206.6
1948	3,464.2	840.0	N.A.	65.5	371.6	153.0	201.5	437.1	107.4	5,640.3
1950	4,337.7	1,136.0	1.1	98.1	426.0	250.0	258.8	557.8	213.6	7,279.1
1953	6,200.0	1,831.0	14.4	134.3	469.0	380.2	279.3	666.0	267.8	10,242.0
1955	7,110.0	2,240.0	21.9	150.8	515.0	409.5	306.0	715.0	308.9	11,777.1

a. Estimates based on comparable linear base. Where cloth output was reported in square meters, conversion to linear meters was made with the following factors: 1 square meter of cotton cloth is equal to 1.137 linear meters; 1 square meter of wool cloth is equal to 0.7407 linear meter; 1 square meter of silk and flax cloth is equal to 1 linear meter. (See Appendix B.)

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The ineffectiveness of the early postwar investment program and the accompanying limitations, however, were a carryover of prewar capabilities and distribution of textile machine-building capacities within the Bloc. Only the USSR and East Germany had facilities for the manufacture of textile machinery in quantity, and because the priority of replacements remained within the USSR, any additions to the European Satellites and Communist China came either from the probable transfer of old equipment from Czechoslovakia or through foreign purchases.

The slow rate of estimated equipment inventory gains by the USSR, related to fiber gains (especially cotton), did, however, enable the USSR to pursue the policy of exporting surplus cotton to the European Satellites (much of which was returned in manufactured textiles under reprocessing agreements), thereby utilizing available Satellite equipment and labor and accruing benefits without the need of heavy domestic expenditures and investments.

Beginning in 1950, plans were made for a more realistic appraisal of consumer textile product needs. The Fifth Five Year Plan announced by the USSR indicated that considerable improvement was to be achieved by the textile industry. The production capacities for the manufacture of cotton goods were to increase 32 percent in 5 years, and synthetic fiber capacities were to increase 4.7 times. Output of fabrics was to increase 61 percent for cotton, 76 percent for linen, 54 percent for woolen, and 90 percent for knitwear. 28/

In Communist China the program for expanding cotton production was extended to attainment of a higher output of textile consumer goods. Basic plans in 1951 called for the construction of new cotton mills with a total capacity of 162,000 spindles and for building a textile machine manufacturing plant to be completed in 1951. 29/

Even in the European Satellites, with the exception of Czechoslovakia, the announced goals were all in excess of prewar levels. The initial Five Year Plan program for the Czechoslovak Textile Industry was scrapped in 1950, with the resulting transfer of buildings and surplus labor to the metallurgy industries. 30/

Reported production gains in the Soviet Bloc from 1950 to 1952 were followed by price declines and announced expanded processing capacities. The exception was Communist China, which showed a

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decrease in production during 1951, resulting from low inventories of raw material. 31/ In subsequent years, however, the production trend in Communist China has been continually upward. Beginning in 1950, indications also show that the demands by the USSR that European Satellite finished goods be returned under reprocessing agreements were reduced. 32/

The increases in production, however, were not accompanied by an improvement in quality, a result of failures to attain internal self-sufficiency of fibers and of the low rate of investment allocated for replacing obsolete equipment. Any efforts aimed at improvement, on the other hand, had to be initiated from within the USSR; the bulk of fiber supplies and the greater part of new processing equipment were controlled by the USSR.

In mid-1953, the full impact of Soviet Bloc deficiencies were made known to the free world through the various decrees in the European Satellites and the USSR, directed towards improving the quantity and quality of textile consumer goods. Emphasis in Communist China has not been as pronounced but all indications point to concerted efforts to raise textile output considerably above prewar levels. The initial steps taken within the Bloc were to increase imports of raw materials (especially wool and rayon) and processing equipment from the non-Bloc countries. Plans on the other hand revealed that a higher rate of investment in the internal machine-building capacities, and construction of new plants would enable greater efficiency and output by 1954-55.* 33/

* Planned increased of textile machinery in the USSR and East Germany:

<u>USSR</u>	<u>1953</u>	<u>1954</u>	<u>1955</u>
Spindles			
Cotton		480,000	1,180,000
Wool		43,000	181,000
Looms			
Cotton		13,000	32,130
Wool		995	3,205
Silk		1,175	2,080
<u>East Germany</u>			
Spindles	102,000	150,000	

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By the end of 1953 the estimated Soviet Bloc production in terms of cloth had reached 10,242 million meters or an increase of approximately 3,036 million meters over prewar. The projected increase to 1955 indicates a probable production of 11,777 million meters which, however, is still less than the total US cloth production of 12,900 million meters in 1953. The variables of production (both quality and type), however, remain indeterminate as a measure of actual gains, but if continued emphasis is placed on improving quality, the advantage accruing to the consumer will be greater than computed volume increases indicate. (See Table 9*.)

Despite the fact that estimated 1953 textile output, in terms of cloth, in the Soviet Bloc has increased about 37 percent over 1950, the relationship of present per capita production, estimated at 13.1 linear meters, to the US output of 81.5 linear meters (1953) reveals a truer picture of relative magnitudes and indicates a basic weakness in the processing capacities and fiber availabilities in the Bloc. Estimated production of textiles in countries of the Soviet Bloc and in the US, 1950, 1953, and projected 1955, are shown in Table 10.** Assuming that the 1955 production will be attained, Soviet Bloc production per capita will attain only 14.9 meters, in terms of cloth. Wide variations, of course, exist in individual countries -- ranging from a high of 39.8 linear meters per capita in Czechoslovakia to a low of 4.8 linear meters in Communist China. The Bloc as a self-contained economic unit and the individual countries in the Bloc, however, can expand only as rapidly as internal investments for raw material and machinery are made available.

Furthermore, the postwar dependence of individual Satellites on the USSR and Communist China for fiber requirements and machinery in effect limits any maximum output by these countries to the plans and policies of these two major producing and consuming countries.

VI. Utilization and Requirements.

Estimates of utilization of textile products in the Soviet Bloc have been limited to 1953, since this year represents the maximum of Bloc potential compared to any single prewar or postwar year, and for purposes of analysis is the first year since 1940 that possible consumer accumulations may have taken place.***

* P. 30, above.

** Table 10 follows on p. 34.

*** Continued on p. 36.

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Table 10

Estimated Production of Textiles in Countries
of the Soviet Bloc and in the US ^a/_{*}
1950, 1953, and Projected 1955

	1950				1953				1955			
	Cotton	Wool	Flax	Silk and Synthetic	Cotton	Wool	Flax	Silk and Synthetic	Cotton	Wool	Flax	Silk and Synthetic
USSR (Million Linear Meters)	3,810.0	154.4	258.0	115.3	5,300.0	210.0	290.0	400.0	6,000.0	230.0	310.0	570.0
Per Capita (Meters)	19.0	0.77	1.28	0.57	25.1	1.0	1.38	1.9	27.5	1.06	1.42	2.6
Communist China (Million Linear Meters)	1,116.0	3.0	N.A.	17.0	1,800.0	6.0	N.A.	25.0	2,200.0	8.0	N.A.	32.0
Per Capita (Meters)	23.0	0.006	N.A.	0.04	3.7	0.012	N.A.	0.05	4.1	0.017	N.A.	0.66
Albania (Million Linear Meters)	1.0	0.1	N.A.	N.A.	14.0	0.4	N.A.	N.A.	21.0	0.9	N.A.	N.A.
Per Capita (Meters)	0.83	0.08	N.A.	N.A.	10.8	0.31	N.A.	N.A.	15.5	0.66	N.A.	N.A.
Bulgaria (Million Linear Meters)	84.0	8.5	2.6	3.0	115.6	10.7	4.5	3.5	129.0	12.3	5.0	4.5
Per Capita (Meters)	11.6	1.17	0.36	0.41	15.7	1.46	0.61	0.48	17.1	1.63	0.66	0.60
Czechoslovakia (Million Linear Meters)	318.0	38.0	36.0	34.0	330.0	45.0	48.0	46.0	365.0	48.0	48.0	54.0
Per Capita (Meters)	25.4	3.03	2.88	2.7	25.5	3.5	3.7	3.6	27.7	3.64	3.64	4.1
Hungary (Million Linear Meters)	212.0	20.8	10.0	16.0	230.0	20.8	10.0	18.5	250.0	22.0	11.0	23.0
Per Capita (Meters)	22.9	2.24	1.08	1.72	24.4	2.21	1.06	1.96	26.3	2.3	1.15	2.4

* Footnotes for Table 10 follow on p. 35.

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Table 10

Estimated Production of Textiles in Countries
of the Soviet Bloc and in the US a/
1950, 1953, and Projected 1955
(Continued)

	1950				1953				1955			
	Cotton	Wool	Flax	Silk and Synthetic	Cotton	Wool	Flax	Silk and Synthetic	Cotton	Wool	Flax	Silk and Synthetic
Poland (Million Linear Meters) Per Capita (Meters)	425.0 17.2	51.5 2.08	40.0 1.61	41.3 1.67	508.0 19.8	64.0 2.5	42.0 1.64	52.0 2.03	540.0 20.6	70.0 2.66	45.0 1.71	60.0 2.28
Romania (Million Linear Meters) Per Capita (Meters)	170.0 10.6	14.0 0.87	18.0 1.1	11.6 0.72	216.0 13.2	17.3 1.06	21.0 1.28	13.5 0.82	250.0 15.1	19.6 1.2	23.5 1.42	15.8 0.95
East Germany (Million Linear Meters) Per Capita (Meters)	156.0 8.4	74.0 4.0	6.0 0.32	14.0 0.76	250.0 13.5	85.2 4.6	13.0 0.70	32.0 1.7	263.0 14.2	90.5 4.88	16.0 0.86	40.0 2.16
Total Bloc (Million Linear Meters) Per Capita (Meters)	6,292.0 8.2	364.3 0.47	370.6 0.48	252.2 0.33	8,763.6 11.2	459.4 0.59	428.5 0.55	590.5 0.75	10,018.0 12.7	501.3 0.63	458.5 0.58	799.3 1.01
Total US b/ 34/ (Million Linear Meters) Per Capita (Meters)	10,045.0 66.6	429.0 2.85	Negligible Negligible	2,632.0 17.5	10,180.0 64.4	334.0 2.1	Negligible Negligible	2,415.0 15.3	N.A.	N.A.	N.A.	N.A.

a. See Appendix B.

b. Linear yards have been converted to metric equivalent.

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The highest per capita fiber availabilities in the Soviet Bloc are found in East Germany (8.5 kilograms), Czechoslovakia (8.1 kilograms), Poland (5.9 kilograms), and the USSR (5.8 kilograms), and the lowest in Communist China and Albania (1.0 and 1.4 kilograms, respectively). For the remainder of the Bloc countries, the average lies between 3.2 kilograms and 4.3 kilograms. A comparison of the US per capita availability for 1952 of 18.34 kilograms with the highest availabilities in the Bloc shows a ratio greater than 2 to 1, and for the average availabilities (excluding those of Communist China and Albania) the ratio would be 4 to 1. Estimated consumer per capita fiber consumption in the Soviet Bloc and in the US, 1953 is shown in Table 11.*

Soviet Bloc situations are obscured by insufficient data to establish a postwar trend and do not, therefore, reveal the probable postwar lows from 1946 to 1952. US per capita availability, on the other hand, indicates a rising trend compared with the prewar level. During the postwar period, per capita availability of textile products in the US, furthermore, has followed a cyclical trend, reaching relatively low levels in 1949 and 1952.

A favorable factor in terms of future consumer availabilities in Soviet Bloc countries, therefore, is the continued effort being put forth to increase textile production above that of each previous year. If this effort is successful, it will permit the accumulation of textile products by households and might possibly initiate a cycle of consumer demand analogous to that of the US.

Present estimates of the 1953 utilization pattern in the Soviet Bloc show that military requirements take approximately 9.2 percent of the total mill fiber output; industrial requirements account for 16.8 percent, and the remaining 74 percent is probably distributed for household and apparel uses. The use pattern of mill production of textiles in the Soviet Bloc and in the US, 1953, is shown in Table 12.**

The 1953 estimate of military utilization has been computed on the assumption that no large buildup of reserves and requirements has been contemplated for peacetime replacements. No comparable***

* Table 11 follows on p. 37.

** Table 12 follows on p. 38.

*** Continued on p. 40.

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Table 11

Estimated Consumer Per Capita Fiber Consumption
in the Soviet Bloc and in the US a/ 35/
1953

	Kilograms				
	Cotton	Wool	Flax	Silk	Synthetics
USSR	3.5	0.5	1.5	0.006	0.3
Communist China	1.38	Negligible	N.A.	Negligible	Negligible
Albania	1.4	Negligible	N.A.	Negligible	N.A.
Bulgaria	22.5	1.0	0.6	0.1	N.A.
Czechoslovakia	3.9	0.9	0.9	Negligible	2.4
East Germany	3.1	0.7	0.2	Negligible	4.5
Hungary	2.8	0.7	0.5	Negligible	0.3
Poland	3.2	0.8	0.9	Negligible	1.0
Rumania	1.8	0.9	0.5	Negligible	Negligible
US	10.9	1.3	Negligible	Negligible	3.9
					Total
					5.8
					1.38
					1.4
					4.2
					8.1
					8.5
					4.3
					5.9
					3.2
					16.1

a. Based on Table 3. (For methodology, see Appendix D.) Soviet Bloc figures include estimated quantities of material consumed on farms and exclude estimated military consumption and textile end products. Population estimates used in per capita consumption exclude estimated military personnel.

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Table 12

Use Pattern of Mill Production of Textiles
in the Soviet Bloc and in the US a/*
1953

		Communist		Czecho- slovakia	East Germany	Hungary	Poland	Rumania	Metric Tons	
		USSR	China						Total Bloc	US b/ 45/
Cotton	Mill Production	760,000	540,000							
	Apparel				59,000	34,300	110,000	34,600	1,633,700	2,033,300
	and households	550,000	467,000	72,600	43,000	21,300	55,000	27,600		
	Industrial	167,000	27,000	31,600	14,000	5,000	27,000	2,000		
Wool	Military	61,000	60,000	18,000	2,000	3,000	6,000	5,000	144,050	124,740
	Net Trade c/	+18,000	+16,000	3,500	Negligible	-5,000	-22,000	Negligible		
	Mill Production	95,100	5,200	-20,000						
	Apparel				13,900	8,700	26,400	10,800	184,960	211,560
Flax	and households	82,100	1,300	17,400	12,500	6,700	19,000	8,500		
	Industrial	4,800	Negligible	11,500	1,100	500	2,500	400		
	Military	16,000	3,900	1,700	800	1,000	1,500	1,200	26,620	29,500
	Net Trade c/	+7,800	Negligible	1,000	Negligible	-500	-3,400	-700		
	Mill Production	137,000	N.A.	-3,200					209,700	N.A.
	Apparel				4,600	4,800	32,500	10,000		
	and households	53,000	N.A.	16,900	1,000	3,200	16,300	3,000		
	Industrial	70,200	N.A.	8,300	3,500	1,100	7,200	5,500		
	Military	18,200	N.A.	3,800	100	500	1,800	1,500	23,700	N.A.
	Net Trade c/	+4,400	N.A.	1,000	Negligible	Negligible	-7,200	Negligible		
				-3,800						

* Footnotes for Table 12 follow on p. 39.

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Table 12

Use Pattern of Mill Production of Textiles
in the Soviet Bloc and in the US ^{a/}
1953

(Continued)

	USSR	Communist		Albania	Bulgaria	Czechoslovakia	East Germany		Hungary	Poland	Rumania	Total Bloc	Metric Tons	
		China											US	b/ 45/
Silk	Mill Production	2,600	3,400	N.A.	200	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible	6,200		N.A.
	Apparel	3,200	700	N.A.	100	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible			
	and Households	Negligible	Negligible	N.A.	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible			
	Industrial	1,600	Negligible	N.A.	100	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible	1,700		N.A.
Synthetics	Military	+2,200	-2,700	N.A.	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible			
	Net Trade ^{c/}													
	Mill Production	48,300	N.A.	N.A.	Negligible	36,200	103,200	2,900	28,750	2,000	2,000	221,350	667,700	
	Apparel	56,300	N.A.	N.A.	Negligible	27,500	76,200	2,900	22,750	3,000	3,000			
	and Households	5,000	N.A.	N.A.	Negligible	3,000	7,000	Negligible	1,800	Negligible	Negligible	10,100	37,000	
	Industrial	3,400	N.A.	N.A.	Negligible	1,000	5,000	Negligible	700	Negligible	Negligible			
	Military	+16,400	N.A.	N.A.	Negligible	-4,700	-15,000	Negligible	-3,500	Negligible	Negligible			
	Net Trade ^{c/}													

a. Soviet Bloc mill production includes raw fiber produced domestically and imported from both Bloc and non-Bloc countries.

b. 1952 US mill production.

c. Soviet Bloc figures include estimated intra-Soviet Bloc and non-Bloc trade of textile products converted to raw fiber equivalents.

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estimates of military demands by the Soviet Bloc for the period of years prior to 1953 is available, but spotty information from early postwar years indicates that requirements were much greater, which probably would have resulted in reducing the per capita availabilities of the civilian population proportionately. 36/

Under wartime demands or full mobilization, military requirements, based on US analogy, may take as high as 37 percent of the total fiber availabilities, and unless Soviet Bloc reserves are adequately stocked for such an emergency, the availabilities to the household and apparel consuming sectors would be rationed immediately.

The industrial requirements of the Soviet Bloc do not appear to be excessive, but they may rise slightly as Bloc countries become more industrialized -- particularly Communist China. Comparative analysis of the industrial requirements for cotton in the more advanced countries of the Bloc such as the USSR, Czechoslovakia, East Germany, and Poland show a close approximation to the US percentage distribution, and future demands by industry are not expected to affect materially the availability of household and apparel fabrics.

The requirements of agriculture are assumed to be covered under industrial utilization, and most of the output of flax textiles is directed to this use. Since data on jute are limited, it was assumed that continued imports of jute were necessary to provide for future demands by agriculture.

The net trade position of textile products by individual Soviet Bloc countries brings to focus the possibility of raising consumer apparel and household availabilities, especially in Hungary, Czechoslovakia, and Poland. From limited data, it has been assumed that the major portion of exports of textile products by these countries move to the USSR or to Communist China and represent payment for supplies of imported raw materials. 37/ On a per capita basis the gains by either Communist China or the USSR are negligible, however, if distribution is made within the manufacturing country. A considerable improvement in the total availabilities of household and apparel supplies could thus occur.

Conversely, the established lines of trade now existing are not expected to change within the next few years; the program of exporting finished textiles from the European Satellites to the USSR permits

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the USSR to maintain an export position with the neighboring countries of Iran, Iraq, and Egypt, all of which return fiber raw materials as part payment. Exports of textile products from the European Satellites to Communist China will probably be used as payment for raw material supplies.

Assuming, then, that the present estimated distribution pattern to military forces and industry is not altered, future increases in textile production under expanded programs should be channeled directly to the apparel and household sectors of the economy. The present consumer emphasis program, therefore, implies that military and industrial requirements must remain relatively static in order to help insure greater distribution of textile production to the civilian population.

VII. Stockpiling and Reserves.

The limited information on stockpiles and reserves of textile products and raw fiber materials in the Soviet Bloc precludes any firm estimates. On the basis of available data, only rough approximations of the quantities and kind of reserves can be made.

For interpretative purposes, carryover year-end stocks of raw materials are assumed to exist in all countries, and the range of desired level would approximate 3 to 4 months' supply. There are indications, however, that some of the European Satellites have been operating on less and are forcing partial idleness of mills. ^{38/} The assumptions are made, therefore, that the volume of strategic or reserve stocks of raw fiber materials in the European Satellites is insignificant.

Because the USSR and Communist China are the main producers of fibers and textiles, more weight has been given to these areas as repositories of strategic stocks. Available prewar data on cotton stocks for the USSR indicated that a carryover reserve of approximately 7.5 months' supply (at existing consumption levels) were held in 1940. ^{39/} Preliminary estimates made on a running series from that date to 1953 indicate a probable carryover stockpile ranging from 5 to 7 months' supply. Estimates of Chinese Communist cotton stocks based on a postwar compilation indicate a carryover stock supply ranging from 4 to 6 months. On the basis of the above calculations, strategic reserve stocks would probably fall into a range from 3 to 5 months' supply in both the USSR and Communist China.

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No comparable data have been worked up for wool, but the cycle of postwar emphasis on wool purchases by the Soviet Bloc implies that possible accumulations are made in peak purchase years and replaced periodically in order to maintain an adequate balance.

The stockpiling of finished textile products in lieu of raw materials probably exists in all Soviet Bloc countries at a level of emergency military needs. A possible guide for establishing an estimate has been derived from East German statistics for 1951, which indicated a level of reserves (assumed to be strategic) representing a level less than 2 percent of the total production of cotton cloth (apparel and industrial), artificial silk cloth, heavy linen cloth, and string. ^{40/} Year-end stocks for all textile products ranged from 4 to 6 percent of total production. ^{41/}

The probability of a higher reserve existing in the USSR than in East Germany may be assumed, based on US military planning, ^{42/} and because a similarity does exist in regard to the vulnerable position of wool in both countries, there is probably a greater effort being made to stockpile wool than other fibers.

VIII. Location and Expansion of Processing Capacities.

The geographical location of the textile-processing capacities in the countries of the Soviet Bloc have followed the historic pattern of heavy concentration in major populated areas. Consequently, one of the main economic objectives of planned programs has been, and still is, to develop processing capacities in the vicinities of the areas producing raw materials -- particularly in the USSR and Communist China -- to meet more readily the growing demands of the population in the newly industrialized areas. Completion of such a program would help to eliminate the economic wastes accrued from long cross hauls of raw materials and finished products, and could reduce the vulnerability of the textile industry in the event of territorial losses or destruction of present concentrated centers.

Present estimates for the USSR show that the Central Region* (Region VII), with only 23 percent of the total population, accounts

* The term region in this report refers to the economic regions defined and numbered on CIA Map 12048.1, 9-51 (First Revision, 7-52), USSR: Economic Regions.

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for about 70 percent of the total textile production but supplies only 23 percent of the total fiber needs, most of which was flax.

The main textile raw materials, cotton and wool, are both produced in the remote regions of Kazakhstan (Region Xa), Central Asia (Region Xb), North Caucasus (Region IV) -- Central Asia accounting for approximately 82 percent of the cotton supplies and Kazakhstan about 25 percent of the wool supplies. Estimated distribution of raw material production of selected commodities in the USSR, by economic region, 1953, is shown in Table 13.*

The program for decentralizing the textile industry was started in the First Five Year Plan (1928-32). At that time, approximately 90 percent of the textile processing industry was located in Region VII. ^{43/} The slow transition was carried out in successive Five Year Plans, with particular emphasis on locating cotton textile mills closer to raw material supplies.

Planned goals stated in the Fifth Five Year Plan and repeated in the recent Consumer Decrees indicate a continuing effort to build plants closer to supply sources and in regions of new industrial growth. The efforts, however, are premised on construction priorities and on the expected rate of output by the textile machine building industry. Under present plans, large cotton, wool, and silk processing plants will be located in the Ukraine (Region III), the North Caucasus (Region IV), the Transcaucasus (Region V), and the Volga (Region VI). If these plants are completed by 1955, they will probably reduce the concentration of the Central Region (Region VII) to approximately 60 percent. ^{44/} (See Appendix C.)

In the Soviet plans is one obvious deterrent to contemplated construction in terms of output and completion date -- the continued emphasis on large mills rather than smaller and more numerous plants. This approach tends to reduce the immediate potential for raising textile output but follows the ideas of the Second Five Year Plan in the USSR aimed at long-range objectives. Short-term emphasis as implied under the new Consumer Decrees must, therefore, be achieved through maximizing present capacities even down through the co-operative level.

* Table 13 follows on p. 44.

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Table 13
Estimated Distribution of Raw Material Production
of Selected Commodities in the USSR
by Economic Region a/
1953

Commodity	Economic Regions														Percent
	Ia	Ib	IIfa	IIIfb	III	IV	V	VI	VII	VIII	IX	Xa	Xb	XI	
Population (Percent of Total USSR) 45/	3.9	1.7	3.4	4.4	22.3	4.7	4.0	5.3	23.1	6.9	5.6	3.4	5.4	3.4	2.4
Cotton	0.0	0.0	0.0	0.0	2.2	2.5	9.0	0.8	0.0	0.0	0.0	3.3	82.2	0.0	0.0
Cotton Yarn and Cloth	12.1	0.5	0.3	0.3	1.1	1.0	2.4	1.1	71.1	1.0	2.9	2.0	4.0	0.2	Negligible
Wool	1.3	0.5	1.1	1.4	7.1	10.2	7.2	9.3	11.3	3.4	6.6	24.5	13.7	1.8	0.6
Wool Yarn and Cloth	4.6	Negligible	0.3	0.3	5.3	1.1	3.0	10.0	69.3	1.0	1.0	2.7	0.7	0.7	Negligible
Flax	6.4	5.2	5.0	8.5	7.9	0.9	0.4	5.0	43.8	6.6	6.2	0.1	3.1	0.8	0.7
Flax Yarn and Cloth	3.0	Negligible	2.7	4.5	Negligible	Negligible	Negligible	4.0	83.0	0.4	2.4	Negligible	Negligible	Negligible	Negligible
Silk	0.0	0.0	0.0	0.0	1.5	1.4	23.8	0.0	0.0	0.0	0.0	0.6	68.2	0.0	0.0
Synthetics	30.0	Negligible	Negligible	Negligible	30.0	Negligible	Negligible	Negligible	30.0	5.0	5.0	Negligible	Negligible	Negligible	Negligible
Synthetics and Silk Cloth	Negligible	Negligible	Negligible	Negligible	10.3	Negligible	11.0	Negligible	58.5	8.0	Negligible	Negligible	2.2	Negligible	Negligible

For methodology, see Appendix D.

a. For methodology, see Appendix D.

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In Communist China, the degree of concentration is heaviest in East China* accounting for approximately 72 percent of the cotton textile-processing capacities and 68 percent of the wool-processing capacities, most of which are located in the cities of Shanghai and Tsingtao. Although insufficient data are available for a regional breakdown of silk cloth production, the degree of concentration is probably as great as that noted for cotton and wool. Estimated distribution of raw material production of selected commodities in Communist China, by administrative area, 1953, is shown in Table 14.**

The plans for relocation of textile mills in Communist China have been continuous since 1950 and have resulted from probable movement of reconditioned plant equipment out of the Shanghai area or from imports of equipment from the USSR or non-Bloc countries. ^{46/} Mention of domestic machine building capacities continue to appear in press reports, but actual performance has been limited, largely, to the reconditioning of old equipment. ^{47/} The existing limitations to the building of new equipment in volume, along with maximum efforts to improve present equipment, preclude any significant change in the geographical distribution within the next several years. ^{48/} (See Appendix C.)

Because of the smaller area involved and the low level of indigenous raw material supplies to mill demands, location of industry in the European Satellites does not reveal the same degree of economic waste in production as is apparent in the USSR and Communist China.

The geographic changes in the distribution of processing facilities for these countries, therefore, have been relatively minor under Communist control. Long-range planning, however, indicates an intention to increase processing capacities in Albania, Bulgaria, and Rumania and the possible emergence of Poland as the core of textile activity for the European Satellite areas. ^{49/}

There is insufficient evidence to confirm the extent of such planning, but based on the reported new construction of mills in Tirana in Albania, Sofia and Pleven in Bulgaria, and Moldavia and Jassy in

* As defined by the recently abolished Communist Administrative Divisions. See CIA Map No. 12577, 2-53, China: Communist Administrative Divisions - 1953.

** Table 14 follows on p. 46.

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Table 14

Estimated Distribution of Raw Material Production
of Selected Commodities in Communist China
by Administrative Division a/
1953

Commodity	Population (Percent of Total Communist China)	Administrative Divisions						Percent	
		North- east Area	Inner Mongolia Autonomous Region	North China Area	East China Area	Central and South Area	South- west Area		North- west Area
	8.73		0.005	14.08	27.95	28.71	14.82	4.93	0.0003
Cotton	5.8		Negligible	30.4	23.2	27.8	3.8	9.0	Negligible
Cotton Yarn and Cloth	6.7		Negligible	10.1	71.7	5.0	4.6	1.9	Negligible
Wool	9.7		N.A.	17.2	3.2	2.0	1.6	59.4	6.9
Wool Yarn and Cloth	9.2		N.A.	14.0	68.2	0.9	5.9	1.8	N.A.
Silk	N.A.		N.A.	N.A.	71.0	14.0	12.0	N.A.	N.A.
Silk and Synthetic Cloth	N.A.		N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

a. For methodology, see Appendix D.

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Rumania -- in addition to the present and planned high output of Poland estimated at 30 percent of total Satellite production -- actual construction may already be in progress.

The present concentration of processing capacity in Poland is in the areas surrounding Lodz, Bielsko, and Katowice and in the Silesian district annexed from Germany. 50/

The growth of Poland as the major center of textile activity was aided by the reduction of capacity in Czechoslovakia, some of which reportedly was sent to Poland. Czechoslovak textile output is presently estimated at 21 percent of European Satellite production, compared with 27 percent in prewar. With minor exceptions, centers of concentration have remained the same as prewar. Major cotton mills are located in Nachod, Cervený-Kostelec, Broumov, and Tanvald, each producing approximately 10 percent of the total Czechoslovak output. Woolen mills are concentrated in the cities of Brno, Liberec, and Humpolec. It is estimated that from 30 to 45 percent of total Czechoslovak output is produced in those 3 cities. 51/

East Germany is the third ranking Satellite textile-producing country. Present output is estimated at approximately 17 percent of total European Satellite production. Concentration is greatest in the old Laender of Saxony, reported to have 23 percent of all textile-processing capacities of East Germany. 52/

Hungary and Rumania each produce about 12 percent of the European Satellite textile output. Major processing centers in Hungary are located in the cities of Budapest, Győr, Sopron, Pomáz, and Tolna. In Rumania the cities of Bucharest, Arad, Pucioasa, Sibiu, and Bacau are the leading centers of textile-producing activity. 53/

Bulgaria and Albania produce approximately 6 percent and less than 1 percent, respectively, of total European Satellite textile output. Except for Tirana in Albania, there is no other city of major textile importance. In Bulgaria the cities of Sofia, Varna, Gabrovo, and Silven are the chief textile-processing concentrations. 54/

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IX. Inputs.

For purposes of comparison the major inputs of the Soviet Bloc textile industry are confined to raw materials (fibers), labor, electric power, and total number of spindles. The estimates for 1953 and the projections for 1955 were based on available postwar information in the respective countries and guided by comparative US factors.

Total Soviet Bloc mill fiber requirements for 1953 have been estimated at 2.25 million tons, and for 1955 a 10-percent increase has been projected on the basis of increased textile output under the present emphasis program. Although planned indigenous Bloc fibers are expected to supply the greater part of projected textile mill requirements, imports of non-Bloc supplies will probably continue through 1955 on a basis commensurate with specific individual fiber shortages.

The textile labor force in the Soviet Bloc for 1953 has been estimated to require about 2.87 million workers, and for 1955 projections show a labor force of approximately 3.10 million workers. Because of the variations in specialization and skills in individual countries, the size of the labor force relative to textile output varies considerably between Bloc countries. The higher labor inputs in Czechoslovakia, Poland, and East Germany, however, are explained by the more advanced stages of the knitting industry, which is a high labor-consuming industry.

Even though the textile industry in the Soviet Bloc has been competing for skilled labor with heavy industry, there have been no recent indications that labor shortages have been a limiting factor to production. Estimates for 1955 assume an average labor productivity equal to 1953 on the basis that in all probability additions of new equipment will not measurably offset the heavy proportion of old and obsolete processing machinery.

The 1953 electric power requirements of the Soviet Bloc textile industry are estimated to have consumed about 5.64 billion kilowatt-hours (kwh), and 1955 requirements will approximate 6.22 billion kwh. The projected requirements have been based on the assumption that the electric energy factor per ton of fiber processed is equal in all countries. Differences admittedly do exist, but insufficient data on total mill operating time and economics of operation in terms of size and type of equipment have

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limited the scope to tentative estimates. Where possible, estimates have been guided by reported prewar and postwar statistics and checked against the 1938 average computed power factor in the US.

Light industry energy requirements, however, have had to compete with those of heavy industry and in the past have probably had a lower priority. Because of the consumer emphasis programs in the Soviet Bloc projected requirements, it is assumed that lack of electric energy will not be a bottleneck.

Total estimated spindles in the Soviet Bloc for 1953 amounted to 24.2 million, and projections for 1955 assume the addition of approximately 2.2 million, most of which will be required by the USSR and China. Under the present consumer emphasis programs, investments for equipment indicate a considerable expansion in the textile machine building output. It is expected, however, that imports will be necessary to supplement domestic production.

Textile industry inputs in the Soviet Bloc, 1953 and projected 1955, are shown in Table 15.*

X. Capabilities, Vulnerabilities, and Intentions.

A. Capabilities.

Although the initial intent of attaining fiber and textile self-sufficiency had faded somewhat by 1953, the program did add stature to total Soviet Bloc capabilities. The efforts to improve fiber availabilities (especially cotton) through domestic production were successful to the extent of reducing foreign imports considerably, and they helped to bring the economies of the Satellite countries into closer integration with those of the USSR and Communist China. The full impact of Communist China's fiber potential, furthermore, has not been reached -- leaving open the possibility of a closer approach to Bloc fiber self-sufficiency.

Added to the probable expansion of production of cotton and wool fibers, the untapped potential of flax fiber may add considerably to fiber availability for industrial and agricultural demands, and could release for the production of apparel and household goods supplies of cotton now allocated to industry and agriculture.

* Table 15 follows on p. 50.

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Table 15

Textile Industry Inputs in the Soviet Bloc
1953 and Projected 1955

	1953				1955 ^{a/}			
	Raw Material (Metric Tons)	Labor (Number Employed)	Electric Power (Million kwh)	Estimated Spindles (Thousand)	Raw Material (Metric Tons)	Labor (Number Employed)	Electric Power (Million kwh)	Estimated Spindles (Thousand)
USSR	1,043,000	1,100,000	2,607.5	10,240.0	1,174,700	1,245,000	2,936.8	
Communist China	548,600	700,000	1,371.5	5,249.0	580,300	735,000	1,450.8	
Albania	2,500	2,500	6.4	21.0	4,000	4,100	10.0	
Bulgaria	32,200	35,000	80.5	357.5	37,200	41,000	93.5	
Czechoslovakia	143,100	200,000	357.7	3,009.0	147,600	205,000	369.0	
East Germany	181,700	350,000	451.8	2,700.0	204,400	376,000	511.0	
Hungary	50,700	60,000	126.7	442.0	52,500	62,000	131.2	
Poland	197,650	350,000	494.1	1,720.0	204,600	357,000	511.5	
Rumania	57,400	75,000	143.5	464.2	63,700	82,000	159.3	
Total	2,255,850	2,872,500	5,639.7	24,202.7	2,469,000	3,107,100	6,220.8	26,400.0

a. Factors for projections: labor -- 1 man produces 0.9 metric tons; power -- 1 ton raw material uses 2,500 kwh for conversion to cloth; spindles -- 1 spindle produces 93.1 kilograms of yarn per year.

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Intra-Bloc trade of textile products has also been stimulated, aiding in further establishing Bloc interdependence and solidarity. Accompanying increased trade within the Bloc, the emphasis on non-Bloc imports of machinery and equipment, as well as fibers, will permit a more rapid expansion in the future.

One asset to the future potential of the Soviet Bloc is the application of new techniques in the field of synthetic fibers. Progress has been slow, compared with the expansion of the production of cotton, but with aid from free world supplies and a concentrated domestic investment program, domestically produced synthetic fibers could become a significant factor in the total fiber availability within the Bloc.

B. Vulnerabilities.

The heavy concentration of fiber strength in the USSR and Communist China places the European Satellites in a dependent status. This limitation to Satellite plans is most pronounced in wool and cotton needs and necessitates either a curtailment of wool and cotton use or imports of non-Bloc supplies.

Weaknesses in all Soviet Bloc countries are the poor quality of textiles and the high prices passed on to the consumer. Increased textile supplies to the consumer could probably ease the price situation, but quality of output is dependent on raw materials and equipment, neither of which have attained a level of efficiency comparable to that of the free world textile producing countries.

The main vulnerability of the textile industry in the Soviet Bloc probably lies in the distribution of supplies and low operating stocks. Preliminary research data on stocks show that estimated reserves of cotton in the major producing countries, the USSR and Communist China, are only slightly more than one-half year's mill consumption. Estimates of stocks of other fibers have not been made, but it may be assumed that such stocks are no greater than those of cotton. Expansion of textile output depends on willingness to reduce reserves and on the ability to expand production of synthetic fibers.

The channels of distribution both within the main fiber-producing countries and to the Satellite dependents have reportedly forced mills to operate on a hand-to-mouth basis. If textile production is to be increased, channels of distribution must be improved.

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Apart from technical aspects, a major weakness of the textile industry of the Soviet Bloc is the direct effect of controlled decisions on planning. Using the USSR as an example, planning policies fluctuate considerably, failure to follow through on present expansion aims is always possible, and the textile needs of the consumer again may be relegated to the expendable category.

C. Intentions.

Historic trends indicate that in the European Satellites and the USSR the low level of textile output in the early postwar years and the slow rate of recovery through 1950 were determined by economic limitations of raw materials and by the apparent diversion of revenue from the textile industry to investments in heavy industry and military needs.

The economic intentions implied that, without discontinuing emphasis on heavy industrial and military programs, textile needs could be supplied from resources within the USSR and the European Satellites through effective planning. The availability of Chinese resources (especially wool) after 1950 may have prolonged this concept, but the expressed desire of improving trade relations with the free world, stated at the Moscow Economic Conference in 1952, indicated concern about consumer restrictions and inadequate production increases.

The fact that agreements signed with participating representatives of the non-Soviet Bloc countries centered on textile items implied both an awareness of domestic textile deficiencies and of the stagnation of the world textile markets existing at the time.

The present emphasis on expanding textile output has probably been the result of both political and economic adjustments within the Soviet Bloc. Economically, the program implies a new force to relieve a chronic maladjustment existing since the end of the war and to seek to take advantage of continued stagnation of world textile markets complemented by burdensome surpluses existing in various non-Bloc countries. In addition the probable use of textile products, both imported and domestically produced, as economic incentives to gain higher productivity of essential industrial and military goods should not be overlooked. Politically, the emphasis on expanding out of textiles may be an attempt to avoid Satellite uprisings like that

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which occurred in East Germany. Soviet officials may feel that admission of failure and promise of greater textile availability to the consumer may have a definite morale value.

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APPENDIX A

ADMINISTRATION AND ORGANIZATION OF THE TEXTILE
INDUSTRY IN THE SOVIET BLOC

1. USSR. 55/

The administration and organization of the Textile Industry in the USSR is presently directed through the Ministry of Manufactured Consumer Goods Industries, created in 1953. From all indications the administrative bodies within the newly created Ministry of Manufactured Consumer Goods Industries has taken on all the functions of the former Ministry of Light Industry, and for purposes of showing the organizational breakdown it is assumed that little or no change in the subordinate bodies has taken place. Exceptions exist in the procurement of fibers, which has been transferred from the Ministry of Cotton Growing and the Ministry of Agricultural Procurement to the Ministry of Manufactured Consumer Goods Industries, and the transfer of wholesale organizations from industries to the Ministry of Trade.

The Ministry of Manufactured Consumer Goods, presently headed by Nikita Ryzhov, directs the enterprises of the textile industry on the All-Union, Republic, and local levels through appointed subordinate chiefs of the All-Union level, and by exercising jurisdictional rights over the control of operations on the Republic and local levels.

For the cotton industry the All-Union industry is directed through the following Main Administrations which exercise jurisdiction over mills which produce approximately 73 percent of the cloth and yarn output:

- a. First Main Administration for the Cotton Industry in the Moscow Oblast,
- b. Second Main Administration for the Cotton Industry in the Moscow Oblast,
- c. Main Administration for the Cotton Industry in the Ivanovo Oblast,
- d. Main Administration for the Cotton Industry in the Leningrad Oblast, and
- e. Main Administration for the Cotton Industry in the New Regions.

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The Republic industries produce approximately 24 percent of the total cloth and yarn and the local and cooperative industries produce approximately 3 percent.

For the wool industry the All-Union Industry is directed through the Main Administration for the Wool Industry, which was formerly separated in two Main Administrations (Main Administration for Fine Cloth and Worsted Industries and Main Administration for Coarse Cloth). It is presently unknown whether or not this subdivision still exists. Total production of the All-Union industries approximates 45 percent of total cloth output. The Republic industries produce approximately 50 percent and the local and cooperative produce approximately 5 percent.

For the linen industry the large All-Union and Republic industries are directed through two Main Administrations, the Main Administration for the Linen Industry and the Main Administration for the Linen Industry for New Regions. Total production of the large All-Union and Republic industries constitute approximately 90 to 95 percent of the total country production.

For the silk and knitwear industries the large-scale industries on the All-Union and Republic levels are directed through Main Administrations for the Silk Industry and Main Administrations for the Knitwear Industries.

Within each Main Administration there are the following divisions: Industrial Management Division, Technical Division, Republic and Local Industry Division, Capital Construction Division, Supply Division, Sales Division, Mechanical Repair Division (for cotton, wool, flax, silk, and knitwear), Planning Division, Finance Division, and Cadres Division. A Technical Division and Republic and Local Industry Divisions are not included in the Main Administrations for the Cotton Industry, and the Main Administration for the Linen Industry.

The Industrial Management Division of the Main Administration exercises daily inspections and operational control and renders aid to enterprises, trusts, and organizations subordinate to the Main Administration.

The Technical Division is concerned with the technical policy of the branch of industry concerned, production methods and supervision of production, breakdowns and ways of preventing them, installation

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of new equipment, and consultations on technical problems. The division renders these services to enterprises of republic and local subordination.

The Republic and Local Industry Division reviews quarterly, yearly, and prospective plans and supervises plan fulfillment for the republic and local industry.

The Capital Construction Division works out plans for capital construction, controls fulfillment of plans under way, and also offers technical operational aid.

The Working Cadres and Pay Divisions organize the recruitment of workers, regulate pay, and find ways of eliminating labor turnover.

The Sales Division supervises sales in subordinate enterprises.

2. Communist China. 56/

No clear-cut administrative lines and organization of Communist China's textile industry are presently available, but from references which cite organizational responsibilities within the textile industry, the assumptions follow that the pattern is similar to that of the USSR and the European Satellites.

Present control of the textile industry is vested in the Ministry of the Textile Industry of the Central People's Government, with subordinate levels such as Cotton Cloth and Yarn Corporation, Wool Corporation, and Silk Corporation, created to administer programs within individual segments of the industry.

The government as yet has not nationalized the textile industry, and as a result a large part of the industry is still in private ownership. For the cotton industry the percentage breakdown for 1953 shows that the State-owned mills constitute approximately 50 percent of total output, joint State and private mills, 5 percent; cooperatives, 3 percent; and private industry, 45 percent.

Control over private industry is, however, maintained by giving priority of raw material needs to the State-owned mills and appointing administrators over the privately owned mills. Extension of control is

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also exercised by the government through trade associations, which are delegated to assist private owners to carry out the policies of the government.

The implementation of plans and programs in the privately owned mills is further directed by the position of the Textile Workers Trade Union. The function of the Union is to assist management in the formulation of production plans and to issue instructions to their representatives.

The position of the private operator, therefore, is one of accepting financial responsibility without power of direction and operation. Therefore, it is to the government's advantage not to seize the private mills, for by leaving the title undisturbed the owner continues to accumulate arrears in taxes until ultimately the mill is forced to close. At the same time, by appointing government administrators, the government controls operations just as effectively as it could by outright ownership.

3. Bulgaria. 57/

No clear-cut plan of organizational structure of the textile industry in Bulgaria is presently available, but prior to 1951 the textile industry was apparently a branch subordinate to the Main Ministry of Industry.

After 1951, references in plan completions and plant analyses indicate a separate Ministry of Light Industry, the functions of which were to include the planning and control of all State-operated textile mills, in addition to other light industry enterprises.

A similar situation existed for local industries and cooperatives. References in 1950 indicated that these industries were under the administrative control of the Minister of Local Industry and Communal Economy. In 1953, however, additional sources cite that the T.P.Z.K. (Artisans Work and Production Cooperatives), which include tailorshops and shoemakers, were directly subordinate to the Ministry of Light Industry.

4. Czechoslovakia. 58/

All Czechoslovak textile plants with more than 300 workers were nationalized between spring and autumn in 1945. A General Directorate of the Czechoslovak Textile Industry, with its seat in Prague, was

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founded, and it set up an unknown number of national enterprises for the purpose of supervising the textile plants. Initially the national enterprises were generally independent, as the General Directorate limited its activities to over-all supervision.

After the Communist coup in February 1948, all textile plants, including those with less than 300 workers, were nationalized, and measures were taken to centralize the control of textile production through the direction of the General Directorate.

The General Directorate, however, was dissolved some time in late 1951 because it proved to be inefficient, and it was replaced by five administrations which were subordinate to the Textile Department of the Ministry of Light Industries.

The five main administrations under the Textile Department were:

- a. Main Administration for Cotton, headed by Alois Karban;
- b. Main Administration for Wool, headed by Franz Haupt;
- c. Main Administration for Linen and Silk;
- d. Main Administration for Hosiery; and
- e. Main Administration for Clothing.

Under each Main Administration, directly subordinate to the Main Administration, there are subsections performing functions related to the operation of the industry, which include the Production Section, the Planning Section, the Technical Section, the Trade and Administration Section, the Finance Section, and the Political and Professional Control Section.

The Production Section directs the production of a particular textile branch and has seven subsections: spinning mills, weaving mills, finishing installations, dye shops, quotas (including wages and salaries), technical control, and research.

The Planning Section, after receiving the over-all plan from the State Planning Office through the Textile Department of the Ministry of Light Industry, issues the production programs to all national enterprises of the textile branch in question. The Planning Section has four subsections -- planning, technical, statistics, and investments -- and cooperates very closely with the Production Section and Finance Section. The national enterprises have only the function of distributing the production programs over their subordinate textile plants according to their capacity.

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The Technical Section approves the construction of new shops, allocates the construction materials and machines, and issues regulations for the maintenance of machines and equipment. It has three subsections -- machines, power, and construction.

The Trade and Administration Section signs agreements for the purchases of raw materials, machines, and spare parts, and for the sale of the whole output of the textile branch in question. The Section allocates the raw materials, machines, and spare parts to the national enterprises and determines the plants and agencies from which the national enterprises have to draw the raw materials, machines, and spare parts, and determines the plants and agencies to which the national enterprises have to deliver their products. The Section issues general administrative regulations for all national enterprises and assists the national enterprises in all legal affairs. The Section settles disputes arising among the national enterprises; according to Czechoslovak law, no government agency can take legal action against any other government agency. The agency has three subsections -- purchases, sales, and legal affairs.

The Finance Section orders the profits to be surrendered by the national enterprises to the State and supervises the financial planning of the national enterprises so that the allocated funds will not be overdrawn. The national enterprises are entitled to purchase goods not exceeding 3,000 Czechoslovak crowns in value without being obliged to ask for the permission of the Finance Section of the Main Administration or, if large sums are involved, the State Investment Bank, respectively. The Section has four subsections -- bookkeeping I, bookkeeping II, investment bookkeeping, and auditing.

The Political and Professional Control Section approves the appointment of directors and leading personalities of the national enterprises and is in charge of professional education and political schooling. The Section delegates functionaries to individual textile plants to watch the morale of workers and employees. The Section has four subsections -- political schooling, on-the-job-training, political functionaries, and personnel.

The production program of textiles in Czechoslovakia is ordered by the State Planning Office, which passes the production plans (including output and technical data), split up according to branches

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(wool, carpets, cotton, silk, linen and hemp, hosiery, clothing, and textile machines), on to the Textile Department of the Ministry of Light Industry. The Textile Department distributes the production plans to the five main administrations; the main administrations determine the production programs of the national enterprises according to their capacity. The national enterprises, in turn, distribute the planned production over their individual textile plants. The national enterprises and the individual plants are compelled to execute the orders received.

5. East Germany. 59/

The direction, planning, and operation of the textile industry in East Germany is controlled through the Main Administration of Light Industry. Under the Main Administration of Light Industry is the Main Administration of Textiles, the Chief of which is Haschker, which has seven subdepartments: Personnel, Administration, Planning, Law, Labor, Research and Techniques, and Wholesale. The VEB (Volkseigene Betriebe -- People-Owned Enterprises) of the textile industry are under the direct supervision of these departments. The Ministry of Textiles is not in charge of the SAG (Sowjetische Aktiengesellschaft -- Soviet Corporation) enterprises, which have their own head administration, nor of the private mills which up until 1952 were under the supervision of their respective Laender governments.

The SAG operations extend only into synthetic production, controlling approximately 32.8 percent of the total East German synthetic production in 1952.

The VEB are divided into two spheres: VEB (D) (Centrally Administered Enterprises), which are directly under the control of the Main Administration of Light Industry; and the VEB locally owned enterprises, which are under the supervision of the local administrations (Bezirk) through directives from the Main Administration of Textiles.

The VEB (D) enterprises control approximately 40 percent of the total production of all the VEB. Total control of production by VEB (D) and VEB (local) is estimated to vary from 50 to 90 percent of the production of all the 74 different types of enterprises of the textile industry in East Germany.

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The remaining enterprises in East Germany are privately owned and operate through contracts from the VEB, SAG, and Soviet Import Organizations.

A completely autonomous complex within the textile industry of East Germany is formed by the Soviet Export and Import Organization and the Central Administration of the Soviet Army. Both of these organizations issue production orders on a priority basis outside the planning commission.

6. Hungary. 60/

The organization and structure of the textile industry in Hungary follows the pattern of other Satellites. The Minister of Light Industry controls and directs the operation of the textile industry through a subordinate Chief of the Main Textile Industry Section, which has four departments -- Management, Production, Finance, and Operational.

Organizational control extends through the Chief of the Main Textile Industry Section to subordinate Main Administrations, whose direct control extends over individual plants.

The following Main Administrations are subordinate to the Chief of the Main Textile Industry Section:

- a. Main Administration for the Transdanubian Textile Industry;
- b. Main Administration for Fine Textiles;
- c. Main Administration for the Spinning Industry in Pestszentloric;
- d. Main Administration for Hosiery and Knitting Goods;
- e. Main Administration for Hemp and Jute Goods;
- f. Main Administration for the Knitting Industry;
- g. Main Administration for the Cotton Industry;
- h. Main Administration for the Clothing Industry;
- i. Main Administration for the Silk Industry; and
- j. Main Administration for the Ribbon and Yarn Industry.

7. Poland. 61/

The Ministry of Light Industry supervises the administration of the textile industry through the following agencies (the present Minister of Light Industry is Stawinski):

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- a. Central Administration for the Cotton Industry (North);
- b. Central Administration for the Cotton Industry (South);
- c. Central Administration for the Vigogne Yarn and Waste;
- d. Central Administration for the Wool Industry (North);
- e. Central Administration for the Wool Industry (South);
- f. Central Administration for the Worsted Spinning Mills;
- g. Central Administration for the Bast Fiber Industry;
- h. Central Administration for the Silk Industry;
- i. Central Administration for the Decorator Fabric Industry;
- j. Central Administration for the Hosiery Industry;
- k. Central Administration for the Flax Retting Plants;
- l. Central Administration for the Felt Industry;
- m. Central Administration for the Technical Fabrics Industry
- n. Central Administration for the Garment Industry;
- o. Central Administration for the Repair of Textile and Garment Machinery, Installation, and Construction; and
- p. Central Administration of the Purchasing of Textile and Leather Raw Materials.

The synthetic fiber industry is under the Ministry of Chemical Industry. Central Administrations are divided into the following departments:

- a. Mechanical department (in charge of machinery, inventories, and capacities);
- b. Electrical department (supervises electrical apparatus);
- c. Supply department (supplies raw material, paints, spare parts, and chemicals);
- d. Technological department (subdivided into weaving, spinning, and finishing -- heads of department are responsible for the production plan and quality of output);
- e. Planning department (divides production plans among factories according to capacity and special products);
- f. Personnel (political function);
- g. Protection Department;
- h. Labor and Wages Department (directs manpower demands, fixes wages, piecework rates, and premiums);
- i. Military department (supervises military orders);
- j. Export department (controls quality of materials exported by type of shipment); and
- k. Stock department (establishes standards of materials for local markets and export).

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Factory units combine 10 to 12 factories into a unit, which is managed by an administrative force similar to the departments under a Central Administration Agency.

Production of Central Administration Agencies is divided among three distribution agencies: the Ministry of Foreign Trade; the Textile Trade Center, which owns and operates shops in the country; and the Military. There is no present information available indicating a distribution agency for technical fabrics.

8. Rumania. 62/

The Ministry of Light Industry is an outgrowth of the former Ministry of Trade and Industry and was created some time in 1951 or early 1952. The function of the Ministry of Light Industry is to control the production of textiles (cotton, hemp, flax, wool, and silk), knitwear, clothing, glassware, ceramics, toys, and standard products.

The Ministry of Light Industry, in addition to the Minister, consists of 2 Deputy Ministers, 2 Rumanian Advisers, and 2 Soviet Advisers. It includes the following departments: planning, technical matters, administration, bookkeeping, coordination, and sales.

The Ministry controls 390 textile factories, which include 120 spinning and weaving mills directed by the cotton, hemp, and flax department.

There are reportedly no factories working exclusively for war industries, since all factories make 3 grades of products: 1 for local consumption, 1 for military use, and 1 for export (which includes the Party Central Committee and Trade Unions).

Soviet enterprises in Rumania (German factories claimed by the USSR as war compensation) are nominally under the control of the Ministry from which they receive their allocation of supplies. They are subsidiaries of the Textel Company in Moscow, and include the following: Corona at Sebes, Taba at Arad, Teba at Timisoara, Adesgo in Bucharest, and 7 November (formerly Areca) at Siberi. Supervision is exercised over them by the Administration of Soviet Properties in Bucharest.

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APPENDIX B

STATISTICAL TABLES

Table 16

Cloth Production in the USSR
1928-53 and 1954-55 Plan

Thousand Linear Meters				
Year	Cotton Cloth <u>63/</u>	Wool Cloth <u>64/</u>	Linen Cloth <u>65/</u>	Silk Cloth <u>66/</u>
1928	2,870,693	96,441	177,200	9,601
1929	2,068,204	113,225	179,600	13,038
1930	2,351,000	114,500	185,900	17,823
1931	2,242,000	107,900	140,400	19,484
1932	2,417,100	88,700	135,700	21,458
1933	2,393,300	86,100	142,700	25,992
1934	2,438,000	77,900	159,800	31,233
1935	2,390,000	83,500	213,200	34,700
1936	3,091,707	93,900	272,880	45,311
1937	3,212,284	98,408	278,450	51,429
1938	3,419,000	103,000		
1939	3,676,000	110,400		
1940	3,900,000	110,000	270,000	70,000
1941	3,877,000	108,000	256,000	69,000
1942	2,426,000	52,000	93,000	34,000
1943	1,529,000	52,000	93,800	32,000
1944	1,580,000	54,000	97,100	35,000
1945	1,600,000	58,000	100,000	37,000
1946	1,900,000	76,000	100,000	50,000
1947	2,600,000	100,000	120,000	66,000 <u>b/</u>
1948	2,600,000	130,000	150,000 <u>a/</u>	84,000
1949	3,200,000	150,000	190,000	110,000
1950	3,600,000	160,000	230,000	130,000

* Footnotes for Table 16 follow on p. 66.

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Table 16

Cloth Production in the USSR
1928-53 and 1954-55 Plan
(Continued)

Thousand Linear Meters				
Year	Cotton Cloth <u>63/</u>	Wool Cloth <u>64/</u>	Linen Cloth <u>65/</u>	Silk Cloth <u>66/</u>
1951	4,800,000	180,000	260,000 <u>c/</u>	180,000
1952	5,000,000	190,000	260,000	230,000
1953	5,300,000	210,000	290,000 <u>d/</u>	400,000
1954 Plan	5,549,000	242,000	295,000	504,000
1955 Plan	6,267,000	271,000	406,000	573,000

- a. Extrapolated at a constant rate using 1949 as a base.
b. Extrapolated, using 1948-49 as a base.
c. Estimated at same level as 1952 since no 1952 increase over 1951 was announced.
d. Based on announced plan fulfillments.

Table 17

Yarn Production in the USSR
1928-53

Metric Tons				
Year	Cotton Yarn <u>67/</u>	Wool Yarn <u>68/</u>	Linen Yarn <u>69/</u>	Synthetic (Staple and Filament) Yarn <u>70/</u>
1928	329,300	49,500	65,500	163
1929	353,800	57,300	52,600	221
1930	287,000	71,100	69,600	475
1931	314,000	73,000	54,200	1,774

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Table 17

Yarn Production in the USSR
1928-53
(Continued)

				Metric Tons
				Synthetic (Staple and Filament) Yarn <u>70/</u>
<u>Year</u>	<u>Cotton Yarn <u>67/</u></u>	<u>Wool Yarn <u>68/</u></u>	<u>Linen Yarn <u>69/</u></u>	
1932	355,100	71,000	54,500	2,800
1933	367,300	67,500	57,600	4,725
1934	387,800	61,000	66,800	5,000
1935	379,000	65,000	83,000	6,300
1936	440,000	67,765	84,123	
1937	482,849	73,458	88,926	
1938	511,000	76,838		
1939	514,300	82,000		
1940	576,600	83,500	90,000	10,600
1941	582,000	83,300	90,000	
1942	380,000	39,400	38,200	
1943	260,000	38,400	38,200	
1944	263,000	38,900	39,900	
1945	267,000	40,100	41,500	
1946	299,100	52,200	42,500	8,600
1947	397,800	69,400	53,400	6,800
1948	493,200	81,900	69,000	19,100
1949	562,300	97,500	85,000	24,900
1950	607,100	104,800	95,000	34,000
1951	667,000	113,400	105,000	37,600
1952	686,000	122,500	105,000	41,200
1953	700,000	133,000	105,000	44,800

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Table 18

Knit Goods Production in the USSR a/*
1928-53 and 1954-55 Plan

Year	Socks and Stockings (Thousand Pair) b/	Cooper-atives (Percent of Total) c/	Underwear (Thousand Pieces) b/	Cooper-atives (Percent of Total) c/	Outerwear (Thousand Pieces) b/	Cooper-atives (Percent of Total) c/	Gloves (Thousand Pair) b/	Cooper-atives (Percent of Total) c/
1928	55,300							
1929	71,800							
1930	107,000		18,200		2,200		6,500	
1931	140,000							
1932	208,000	26.2	27,300	40.2	11,700	48.9	12,900	42.1
1933	250,900	29.1	36,100	51.4	17,200	55.8	14,900	52.6
1934	322,900	28.1	53,700	46.4	22,400	56.9	23,900	44.7
1935	353,700	22.9	70,000	37.6	26,200	51.1	34,200	40.0
1936	355,400	15.1	78,940	23.6	30,464	46.2	43,970	35.1
1937	392,100	11.5	95,086	23.1	36,294	53.9	45,160	26.1
1938								
1939								
1940	480,000		84,500					
1941 Plan	538,000	12.2	132,360	24.5	55,090	54.0		
1942 Plan	716,000		168,000		70,000			
1943								
1944								
1945	90,000							
1946	120,000							
1947	200,000							

Footnotes for Table 18 follow on p. 69.

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Table 18

Knit Goods Production in the USSR a/
1928-53 and 1954-55 Plan
(Continued)

Year	Socks and Stockings (Thousand Pair) <u>b/</u>	Cooper- atives (Percent of Total) <u>c/</u>	Underwear (Thousand Pieces) <u>b/</u>	Cooper- atives (Percent of Total) <u>c/</u>	Outerwear (Thousand Pieces) <u>b/</u>	Cooper- atives (Percent of Total) <u>c/</u>	Gloves (Thousand Pair) <u>b/</u>	Cooper- atives (Percent of Total)
1948	280,000							
1949	370,000							
1950	470,000							
1951	590,000 d/		132,000		36,000			
1952	620,000		145,000		45,000			
1953	640,000		173,000		56,000			
1954 Plan	673,000		200,000		58,000		49,000	
1955 Plan	777,000		326,000		79,000			
			382,000		88,000			

Absence of an entry in any column indicates that no figure is available.

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72/.

Extrapolated, using 1952-53 as a base.

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Table 19

Inventory of Spindles and Looms
in the USSR a/
1928-53

Year	Cotton Spindles b/ _____	Cotton Looms c/ _____	Wool Spindles d/ _____	Wool Looms e/ _____	Flax Spindles e/ _____	Flax Looms e/ _____	Silk Looms f/ _____
1928	7,261,000	187,000			275,000	10,800	6,480
1929	7,796,000	199,000			314,000	12,000	
1930							
1931							
1932	8,002,000	197,400	279,400	7,100	334,000		
1933	8,002,000	197,000					
1934	7,930,000	216,000			330,000		
1935	6,851,000						
1936	6,871,000						
1937	6,889,000	184,800		10,765	336,900	11,200	4,258
1938	7,606,000	200,600		11,300			
1939	7,765,000			11,700			
1940	8,300,000	200,600		12,300			
1941	8,600,000	205,000		12,800	423,000	13,300	6,337
1942	7,000,000	180,000		13,200	430,000		
1943	5,600,000	145,000		9,900	352,000	12,000	
1944	5,600,000	145,000		9,900	325,000	12,000	
1945	5,600,000	145,000		9,900	325,000	10,800	
1946	5,600,000	145,000		9,900	325,000	10,800	
1947	7,000,000	180,000		10,700	352,000	10,800	
1948	7,300,000	190,000		11,700	362,000	12,000	
1949	7,600,000	200,000		12,700	362,000		
1950	7,950,000	210,000		13,700	382,000	12,000	12,000
1951	8,400,000	230,000		14,700	382,000	12,000	
1952	8,850,000	240,000		15,700	402,000	12,000	
1953	9,300,000	250,000		16,700	402,000	12,000	
				15,700	402,000	13,000	20,000

a. Absence of an entry in any column indicates that no figure is available.

b. 73/.

c. 74/.

d. 75/.

e. 76/.

f. 77/.

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Table 20

Labor Force in the Textile Industry of the USSR a/
1928-40 and 1950

Year	Number of Workers				
	Cotton <u>78/</u> Industry	Wool <u>79/</u> Industry	Linen <u>80/</u> Industry	Silk <u>81/</u> Industry	Knitting <u>82/</u> Industry
1928	522,700	75,200	92,500	30,814	31,000
1929	550,400	76,300	90,300	26,382	35,000
1930	489,000	79,200	95,800		
1931	431,500	85,800	96,900		54,176
1932	494,600	99,200	71,200	24,289	93,300
1933	491,700	97,200	65,500	25,080	101,400
1934	474,600	90,500	59,900	28,161	111,300
1935	517,600	86,700	80,600	25,193	
1936	516,800	85,100	95,417	32,189	112,000
1937					
1938	573,000				
1939					
1940	615,000	93,800	75,750	46,000	
1950	576,700	101,500	71,600	60,000	143,000

a. Absence of an entry in any column indicates that no figure is available.

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Table 21

Annual Announced Plan Fulfillment
of Selected Textile Products in the USSR
in Percentage Gains over Previous Year a/
1946-53

Year	Cotton Cloth 83/	Wool Cloth 84/	Linen Cloth 85/	Silk Cloth 86/	Socks and Stockings 87/	Knitted Outer- wear 88/	Knitted Under- wear 89/	Gloves	Spindles 90/	Looms 91/
1946	17	30								
1947	33	33	26	38	59					
1948	24	28			44					
1949	14	19	22	28	32					
1950	8	3	25	23	26					26
1951	22	13	11	34	26					
1952	6	8		29					18	39
1953	5	9	12	78	4	3	16			

a.. Absence of an entry in any column indicates that no figure is available.

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Table 22

Production of Cloth and Yarn in China ^{a/}
Selected Years, 1931-55

Year	Cotton Yarn ^{92/} (Metric Tons)	Cotton Cloth ^{93/ b/} (Million Linear Meters)	Wool Yarn ^{c/} (Metric Tons)	Wool Cloth ^{c/} (Million Linear Meters)	Silk Cloth ^{c/} (Million Linear Meters)
1931	431,853	801.4			
1935	381,197	1,035.6			
1936	406,742	1,219.2			
1937	389,000	1,219.2			
1946	250,000	537.2			
1947	408,000	840.7			
1948	360,000	840.0			
1949	322,000	840.0			
1950	446,600	1,116.4	2,800	3.0	17.0
1951	354,000	1,050.0	3,500	4.0	20.0
1952	446,000	1,550.0	4,000	5.0	22.0
1953	490,000	1,800.0	4,700	6.0	25.0
1955 ^{d/}	525,000	2,200.0	5,200	8.0	32.0

a. Absence of an entry in any column indicates that no figure is available.

b. Output does not include handicraft industries, which produced approximately 800 million linear meters in 1953. ^{94/}

c. For methodology, see Appendix D.

d. Estimated.

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Table 23

Production of Cloth and Yarn in Albania
1950-55

Year	Cotton Yarn a/ (Metric Tons)	Cotton Cloth 95/ (Thousand Linear Meters)	Wool Yarn a/ (Metric Tons)	Wool Cloth 96/ b/ (Thousand Linear Meters)
1950	150	1,000	60	100
1951	900	6,000	100	150
1952	1,500	8,000	135	250
1953	2,100	12,000	220	400
1954 c/	2,700	16,000	400	700
1955 c/	3,100	21,000	500	900

a. For methodology, see Appendix D.

b. By interpolation.

c. Estimated.

Table 24

Production of Cloth in Bulgaria a/ 97/
1939 and 1945-55

Year	Thousand Linear Meters			
	Cotton	Wool	Flax and Hemp	Silk
1939	33,000	4,500		
1945				
1946				
1947				
1948	58,700	4,500	850	1,350
1949				3,000
1950	84,000	8,500	2,600	3,000
1951	95,000	8,500	3,900	3,000

* Footnotes for Table 24 follow on p. 75.

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Table 24

Production of Cloth in Bulgaria a/ 97/
1939 and 1945-55
(Continued)

Thousand Linear Meters				
<u>Year</u>	<u>Cotton</u>	<u>Wool</u>	<u>Flax and Hemp</u>	<u>Silk</u>
1952	107,000	9,500	4,500	3,200
1953	115,600	10,700	4,500	3,500
1954 <u>b/</u>	122,000	11,500	4,500	4,000
1955 <u>b/</u>	144,000	13,900	5,000	5,500

a. Absence of an entry in any column indicates that no figure is available.

b. Estimated.

Table 25

Production of Yarn in Bulgaria 98/
1948 and 1950-55

Metric Tons				
<u>Year</u>	<u>Cotton</u>	<u>Wool</u>	<u>Flax and Hemp</u>	<u>Silk and Synthetics</u>
1948	10,000	2,500	300	300
1950	15,000	5,000	2,200	800
1951	16,000	5,000	2,200	800
1952	17,000	5,500	2,200	800
1953	19,000	6,000	3,000	1,000
1954 <u>a/</u>	20,000	6,300	3,500	1,000
1955 <u>a/</u>	22,000	7,000	3,500	1,000

a. Estimated.

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Table 26

Production of Cloth and Knitwear
in Czechoslovakia a/ 99/
1937 and 1947-55

<u>Year</u>	<u>Unit</u>	<u>Cotton Cloth</u>	<u>Wool Cloth</u>	<u>Linen Cloth</u>	<u>Silk Cloth</u>	<u>Knitwear</u>
1937	Metric Tons	55,740	17,170	17,350		13,800
1947	Metric Tons	34,164	19,565	8,091	2,213	7,395
1948	Metric Tons	59,577	23,807	8,370		9,057
	Linear Meters	268,430	38,200	30,000	21,400	
1949	Metric Tons	52,702	25,857	9,433	4,309	
	Linear Meters	318,444	47,756	34,000	31,700	
1950	Linear Meters	318,000	38,000	36,000	34,000	
1951	Linear Meters	318,000	38,000	40,000	38,000	
1952	Linear Meters	318,000	38,000	46,000	42,000	
1953	Linear Meters	330,000	45,000	48,000	46,000	15,000 b/
1954	Linear Meters c/	345,000	46,000	48,000	50,000	
1955	Linear Meters c/	365,000	48,000	48,000	54,000	

a. Absence of an entry in any column indicates that no figure is available.

b. Plan figure.

c. Estimated.

Table 27

Production of Yarn in Czechoslovakia a/* 100/
1937 and 1947-55

<u>Year</u>	<u>Cotton</u>	<u>Wool</u>	<u>Linen</u>	<u>Metric Tons Silk and Rayon</u>
1937	88,704	27,200	15,750	
1947	59,160	30,282	8,511	
1948	68,128	32,032	8,512	
1949	75,797	35,399	8,941	26,100

* Footnotes for Table 27 follow on p. 77.

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Table 27

Production of Yarn in Czechoslovakia a/ 100/
1937 and 1947-55
(Continued)

Metric Tons				
<u>Year</u>	<u>Cotton</u>	<u>Wool</u>	<u>Linen</u>	<u>Silk and Rayon</u>
1950	65,000	24,000	9,800	26,100
1951	65,000	24,000	10,800	27,800
1952	65,000	24,000	11,800	34,200
1953	70,000	29,000	13,000	34,200
1954 <u>b/</u>	75,000	30,000	13,000	34,200
1955 <u>b/</u>	75,000	30,000	13,000	34,200

a. Absence of an entry in any column indicates that no figure is available.

b. Estimated.

Table 28

Production of Cloth in East Germany a/* 101/
1948-55

Thousand Square Meters						
<u>Year</u>	<u>Total Cloth</u>	<u>Cotton Cloth</u>	<u>Wool Cloth</u>	<u>Linen Cloth</u>	<u>Silk and Rayon Cloth</u>	<u>Waste Cloth and Other</u>
1948	134,700					
1949	181,900					
1950	262,000	107,000	100,000	6,000	14,000	35,000
1951	334,000	160,000	102,000	8,000	24,200	40,200
1952	346,000	162,000	103,000	9,000	28,000	44,000
1953	387,000	170,000	115,000	13,000	32,000	57,000

* Footnotes for Table 28 follow on p. 78.

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Table 28

Production of Cloth in East Germany a/ 101/
1948-55
(Continued)

Thousand Square Meters						
Year	Total Cloth	Cotton Cloth	Wool Cloth	Linen Cloth	Silk and Rayon Cloth	Waste Cloth and Other
1954 <u>b/</u>	414,000	184,000	120,000	14,000	36,000	60,000
1955 <u>c/</u>	536,434					
1955 <u>b/</u>	436,000	196,000	122,000	16,000	40,000	62,000

a. Absence of an entry in any column indicates that no figure is available.

b. Estimated.

c. Plan.

Table 29

Production of Yarn in East Germany a/* 102/
1948-55

Metric Tons						
Year	Total Yarn <u>b/</u>	Cotton Yarn	Wool Yarn	Linen Yarn	Silk and Rayon Yarn	Waste Yarn
1948	77,377					
1949	92,700					
1950	138,700	38,000	43,900	1,700	9,400	25,000
1951	203,400	62,000	57,000	2,000	15,000	37,000
1952	212,000	64,000	58,000	2,500	16,000	40,000
1953	223,000	67,000	58,000	3,000	18,000	40,000

* Footnotes for Table 29 follow on p. 79.

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Table 29

Production of Yarn in East Germany a/ 102/
1948-55
(Continued)

						Metric Tons
Year	Yarn	Cotton Yarn	Wool Yarn	Linen Yarn	Silk and Rayon Yarn	Waste Yarn
1954 <u>c/</u>	240,000	72,000	60,000	3,500	18,000	40,000
1955 <u>d/</u>	268,000					
1955 <u>c/</u>	268,000	75,000	62,000	4,000	20,000	42,000

a. Absence of an entry in any column indicates that no figure is available.

b. Includes yarn of jute, paper, and flax tow.

c. Estimated.

d. Plan.

Table 30

Production of Cloth in Hungary 103/
1938 and 1946-55

					Thousand Square Meters
Year	Cotton	Wool	Linen	Silk and Rayon	
1938	136,441	19,600	11,000	16,000	
1946	69,400	6,900	3,328	6,000	
1947	118,200	13,600	5,622	9,000	
1948	137,144	20,203	8,000	13,000	
1949	162,672	24,520	8,000	16,000	
1950	192,000	28,000	10,000	16,000	
1951	205,000	28,000	10,400	16,000	
1952	215,000	28,000	10,400	17,000	
1953	209,000	28,000	10,400	17,000	
1954 <u>a/</u>	260,000	38,000	N.A.	20,400	
1954 <u>b/</u>	213,000	30,000	11,000	18,500	
1955 <u>b/</u>	222,000	33,000	11,000	21,000	

a. Plan.

b. Estimated.

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Table 31

Production of Yarn in Hungary a/
1938 and 1946-55

<u>Year</u>	<u>Metric Tons</u>			
	<u>Cotton</u>	<u>Wool</u>	<u>Linen</u>	<u>Silk and Synthetic</u>
1938	20,100	11,000	3,700	1,800
1946	12,000	3,900	1,230	725
1947	20,000	7,700	2,100	1,200
1948	23,000	11,500	3,000	1,700
1949	26,000	13,600	3,000	2,100
1950	28,000	14,500	3,700	2,100
1951	30,800	14,500	3,700	2,200
1952	32,200	14,500	3,700	2,300
1953	32,200	14,500	3,700	2,500
1954 <u>b/</u>	33,300	15,600	4,000	3,000
1955 <u>b/</u>	34,600	17,000	4,000	3,000

a. For methodology, see Appendix D.

b. Estimated.

Table 32

Production of Cloth in Poland a/* 104/
1937 and 1946-55

<u>Year</u>	<u>Unit</u>	<u>Cotton</u>	<u>Wool</u>	<u>Linen</u>	<u>Silk</u>	<u>Knitwear</u>
1937	Metric Tons	51,500	20,900	5,800	2,800	
	Linear Meters	380,000	42,000		23,000	
1946	Metric Tons	37,329	12,723		1,100	
	Linear Meters	206,000	21,800			
1947	Metric Tons	47,385	17,486	8,238	2,779	5,008
	Linear Meters	257,346	32,480	27,557	21,631	

* Footnotes for Table 32 follow on p. 81.

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Table 32

Production of Cloth in Poland a/ 104/
1937 and 1946-55
(Continued)

<u>Year</u>	<u>Unit</u>	<u>Cotton</u>	<u>Wool</u>	<u>Linen</u>	<u>Silk</u>	<u>Knitwear</u>
1948	Metric Tons	59,000	23,000	9,000	4,300	6,376
	Linear Meters	344,174	41,901	31,883	31,325	
1949	Metric Tons	67,431	28,091	10,633	6,466	9,008
	Linear Meters	397,600	48,500	39,300	40,300	
1950	Metric Tons	69,162	30,869	16,430	7,882	9,935
	Linear Meters	425,000	51,467	40,000	41,278	
1951	Linear Meters	454,000	56,100	40,000	47,470	10,500
1952	Linear Meters	480,000	58,400	40,000	52,000	11,000
1953	Linear Meters	508,000	64,000	40,000	52,000	11,500
1954	Linear Meters <u>b/</u>	520,000	68,000	42,000	54,000	
1955	Linear Meters <u>b/</u>	540,000	70,000	45,000	60,000	
1955	Linear Meters <u>c/</u>	620,000	72,000	65,000	70,000	

a. Absence of an entry in any column indicates that no figure is available.

b. Estimated.

c. Original Plan.

Table 33

Production of Yarn in Poland a/* b/
1937 and 1946-55

<u>Year</u>	<u>Metric Tons</u>					
	<u>Cotton</u> <u>Yarn</u>	<u>Wool</u> <u>Yarn</u>	<u>Linen</u> <u>Yarn</u>	<u>Jute</u> <u>Yarn</u>	<u>Rayon</u> <u>Staple</u>	<u>Rayon</u> <u>Filament</u>
1937	83,000					
1946	46,363	18,951		5,226		
1947	59,285	23,780	11,283	8,917		5,582

* Footnotes for Table 33 follow on p. 82.

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Table 33

Production of Yarn in Poland a/ b/
1937 and 1946-55
(Continued)

<u>Year</u>	<u>Metric Tons</u>					
	<u>Cotton Yarn</u>	<u>Wool Yarn</u>	<u>Linen Yarn</u>	<u>Jute Yarn</u>	<u>Rayon Staple</u>	<u>Rayon Filament</u>
1948						
1948	82,000	33,000	13,000	8,838		6,820
1949	91,136	38,556	16,735	4,791		7,300
1950	92,141	41,921	24,825	8,783		7,514
1951	95,000	43,100	25,000			8,340
1952	98,000	43,100	25,000			9,866
1953 <u>c/</u>	100,000	44,000	25,000		13,250	10,500
1954 <u>d/</u>	102,000	45,000	25,000		14,500	12,000
1955 <u>d/</u>	104,000	46,000	25,000		16,000	14,000

a. Production includes vigogne yarn and waste for cotton and blends for wool.

b. Absence of an entry in any column indicates that no figure is available.

c. For methodology, see Appendix D.

d. Estimated.

Table 34

Production of Cloth in Rumania a/* 106/
1938 and 1945-55

<u>Year</u>	<u>Thousand Square Meters</u>			
	<u>Cotton</u>	<u>Wool</u>	<u>Flax</u>	<u>Silk</u>
1938	100,000	10,000		8,100
1945				
1946	16,350	6,300	5,000	
1947				
1948	88,000	10,000		
1949				

* Footnotes for Table 34 follow on p. 83.

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Table 34

Production of Cloth in Rumania a/ 106/
1938 and 1945-55
(Continued)

Thousand Square Meters				
<u>Year</u>	<u>Cotton</u>	<u>Wool</u>	<u>Flax</u>	<u>Silk</u>
1950	150,000	19,000	18,000	11,600
1951	175,000	21,000	21,000	12,000
1952	190,000	22,000	21,000	13,500
1953	190,000	23,300	21,000	13,500
1954 <u>b/</u>	210,000	30,000		17,000
1954 <u>c/</u>	205,000	24,800	22,000	14,500
1955 <u>b/</u>	250,000	32,500		19,000
1955 <u>c/</u>	220,000	26,500	23,500	15,800

a. Absence of an entry in any column indicates that no figure is available.

b. Plan.

c. Estimated.

Table 35

Production of Yarn in Rumania a/* 107/
1938 and 1946-55

Metric Tons				
<u>Year</u>	<u>Cotton</u>	<u>Wool</u>	<u>Flax</u>	<u>Silk and Synthetics</u>
1938	16,500	8,042		
1946	12,500			
1947	11,300			
1950	24,400	9,000	6,600	2,000
1951	28,000	9,500	7,700	2,100

* Footnotes for Table 35 follow on p. 84.

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Table 35

Production of Yarn in Rumania a/ 107/
1938 and 1946-55
(Continued)

				Metric Tons
<u>Year</u>	<u>Cotton</u>	<u>Wool</u>	<u>Flax</u>	<u>Silk and Synthetics</u>
1952	31,000	10,500	7,700	2,300
1953	31,500	11,300	7,700	2,400
1954 <u>b/</u>	33,500	12,500	8,100	2,500
1955 <u>b/</u>	33,500	13,000	8,700	2,700

a. Absence of an entry in any column indicates that no figure is available.

b. Estimated.

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APPENDIX C

TEXTILE PLANT CONSTRUCTION IN THE USSR
AND COMMUNIST CHINA

1. New Plants Planned in the USSR.

Cotton Mills

Kamyshin (Stalingrad Oblast): 484,000 spindles, 15,436 looms.
Engel's (Saratov Oblast): 367,000 spindles, 8,550 looms.
Barnaul (Altay Kray).
Krasnodar (Krasnodar Kray).
Kherson (Ukraine).
Output of the 5 combines is to increase cloth production
about 1 billion meters.

Woolen Mills

Chernigov (Ukraine)
Kansk (Krasnoyarsk Kray)
Ivanov (Ivanov Oblast)
Krasnodar (Krasnodar Kray)
Sverdlovsk (Sverdlovsk Oblast)
Bezhitsa (Bryansk Oblast)
Fryanov Workers Settlement (Moscow Oblast)
New plants will add approximately 80 million meters per year.

Silk Mills

Kalinin (Kalinin Oblast)
Yerevan (Armenia)
Krasnoyarsk (Krasnoyarsk Kray)
Vitebsk (Vitebsk Oblast), Belorussia
Bendery (Armenia)

2. New Plant Locations Reported in Communist China since 1950. 108/

Second State Textile Factory, Chengchow (Central and South)
First State Textile Factory, Hantan (North)
Shihchiachwang Cotton Mill, Shihchiachwang (North)

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Tienhsin Woolen Mill, Tienchu (Southwest)
Yunnan Weaving Mill, Yunnan (Southwest)
Sian Cotton Mill, Sian (Northwest)
Hangchow Silk Factory, Hangchow (East)
Harbin Flax Mill, Harbin (Northeast)
Liaohsi Cotton Mill, Liaohsi (Northeast)
Peking Cotton Mill, Peking (North)

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APPENDIX D

METHODOLOGY

The methodology employed to determine a reliable picture of the Soviet Bloc textile capabilities and potential was to utilize as far as possible all published statistical data of individual Bloc countries. Through checks of known data, it has been possible to work out a reasonable estimate of the total Bloc picture.

Production of textiles depends primarily on available indigenous raw material, and for that reason considerable time has been spent on the study of fiber production in the Bloc. Fiber estimates for 1950-52 were based on previous CIA publications. 109/ For 1953 estimates, interpolations of announced spot yields and production were made for cotton and flax, and a country estimate was made by correlating weather conditions to determine a weighted yield which was applied to the reported sown acreage figures. Wool estimates for 1953 were correlated to reported sheep numbers with interpolations of announced clipped head.

Factors used for the conversion of wool from a grease basis to a clean basis range from 50 to 55 percent of the total estimated weight of grease wool. 110/ Estimates of the amount of wool rags, waste, and shoddy used by the wool industry for extending supplies were based on prewar ratios used by the USSR and on postwar planned use in Czechoslovakia. 111/ The 1953 raw silk estimates for the USSR and Communist China are straight-line projections of postwar trends. Estimates of 1950-53 production of synthetic fibers are derived from current domestic trade journals. 112/ All 1953 estimates are considered preliminary and have a probable range of error of plus or minus 10 percent for cotton, wool, flax, synthetic fibers and plus or minus 20 percent for silk.

To determine the reliability of fiber estimates, it was felt that, where possible, checks should be incorporated from reported textile output. Textile production in most countries is reported in cloth production and yarn output; yarn output is the more reliable indicator of fiber needs for it includes all raw material which is subsequently used by weaving and knitting mills to manufacture cloth, knitwear, and stockings. Where only cloth production

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estimates were given, the need to incorporate factors of cloth weights per 100 meters became apparent, as did the possibility of deriving the quantity by weight of yarn used to process knitwear.

The factors used have been compiled in Appendix B and are based on reported weights in individual countries or by statistical computations. The reliability of computed methods is considered to be reasonably accurate and checks closely with known reported data. The use of cloth weights per 100 meters has further utility as a determinant of possible utility and type of cloth being woven. The ratio is most pronounced in the USSR, where the average weight per 100 meters of cotton in 1932 was only 10.7 kilograms and the weight in 1946 was 13.5 kilograms. 113/ The most obvious explanation of the difference was the manufacture in 1946 of heavier cloth for military and industrial use rather than for apparel.

The percent of yarn used by knitwear industries has been calculated in Appendix B for individual countries. The relationship of quantities of yarn needed to process reported output of knitted goods has been guided by prewar breakdowns in the USSR and planned use in Czechoslovakia. 114/

A calculated factor of average weights of knitwear and socks and stockings has been determined and is used where only reported output of knitwear and stockings is given in units of pieces or pairs. The estimate of 15.0 kilograms per 100 pieces of knitwear and 49 kilograms per 100 dozen pair of socks and stockings has been based on analogy factors. 115/

After a yarn estimate was derived, total yarn production by type was converted back to a raw fiber base for cotton, flax, silk, and synthetics, and to an estimated clean weight basis for wool, in order to arrive at a mill utilization estimate. The percentage factor of raw material needs to process yarn is carried as mill waste or losses incurred during normal processing. This was considered important in order to compare estimated production of raw fiber to estimated mill utilization on an equal base.

The factors used were taken from published source material. It is assumed that because the major part of fiber needs used in the Soviet Bloc (excluding Communist China) were supplied by the USSR, the percentage ratio of losses would be equal in all countries. 116/

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Admitted differences in processing losses will undoubtedly occur in various countries, depending on the age and efficiency of equipment as well as the type of fiber, but the averages for this report have been assumed to be equal throughout the Bloc.

Factors used to determine the losses in processing of yarn from raw material were 8.6 percent for cotton, 20.5 percent for wool, and 29 percent for flax. The losses from synthetic material were assumed to be negligible, and as silk factors could not be computed with any degree of accuracy, and as the quantity was insignificant, it was felt that no appreciable error would appear if no losses were added into the total.

An additional factor used to check fiber requirements from total reported yarn and cloth production was the probability of extending fiber uses, or the interchangeability of fiber in mixture to produce a type of cloth. The most glaring example is noted in reported wool cloth production (which was considered high compared with available wool supplies), and for that reason interpolative methods were used to extract cotton and synthetic weights out of wool cloth.

As a guide to probable factors to be used for the determination of fiber mixtures in cloth, data cited for the USSR, planned data for Czechoslovakia, and data in East German production statistics of 1951 were incorporated into an estimate for these countries. 117/ Information on the percentage mixtures used in Poland, Hungary, and Rumania were taken from overt and covert reports. 118/ For Communist China, estimates have been based on the ratio of 80 percent natural wool and 20 percent mixture, based mainly on prewar data. 119/

The ratio factors may be questioned as to reliability and accuracy, but it was felt that an effort should be made to interpolate possible use of extenders in order to rationalize the reported postwar increases noted in wool cloth production over prewar. The following factors have been assumed. For cotton cloth, all countries have been assumed to use 100 percent cotton or waste cotton, except East Germany and Czechoslovakia, for which the ratio has been estimated at 80 percent natural cotton and 20 percent synthetic and 90 percent natural cotton and 10 percent synthetic, respectively. For wool, the established ratio for the USSR has been 40 percent cotton, synthetics, and wool waste and 60 percent wool; for Czechoslovakia, 50 percent synthetics and 50 percent wool and wool waste; for Hungary, 20 percent synthetics, 20 percent cotton, 60 percent wool and wool waste; for Poland, 50 percent synthetics and 50 percent wool and wool waste; for East Germany,

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80 percent synthetics and 20 percent wool and wool waste. The remaining European Satellites are assumed to have cloth of 60 to 70 percent wool and wool waste, based mainly on the relatively high domestic production of wool and little or no production of synthetic fibers.

The importance of the use of assumed extenders also sheds light on the continued emphasis in press summaries on the improvement of the quality of goods produced and may possibly be one explanation of the reported heavy purchases of wool during the 1953-54 season.

Because mill utilization does not represent the total fiber utilization in the Soviet Bloc, the final step for determining total fiber needs was to estimate the percent of raw material not procured by the government but retained by peasants for home consumption. The factors used for this assumption have been determined by Soviet and Chinese Communist data. 120/

These data indicate that in the USSR all cotton is procured by the government and in Communist China approximately 75 percent is procured by the government. The estimate of government wool procurement is carried at 80 percent for all major wool-producing countries in the Soviet Bloc. The amount of fiber retained at assumed percentages was added to previously calculated mill utilization for each country, and the total quantity of fiber needs became a statistical sum representing total fiber utilization in the Bloc.

The arithmetical calculation representing percentage of self-sufficiency was thus derived from the previously estimated total fiber production compared to the estimated total utilization factor.

In order to check reliability of the computed self-sufficiency attainment, the problem was attacked independently from previously computed figures. The approach used was to compile all available trade data of raw fibers and compare by percentages the relationship of self-sufficiency to the volume of imports compiled. In all cases except wool the computed relationship appeared to fall within the estimated margin of error of plus or minus 10 percent. Because the error for wool was the greatest the possibility of underestimating production, procurement, or trade became obvious. Of the three, trade appears to be the weakest element in the established balance; the volume of transshipments from non-wool-producing countries in the

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world to the Soviet Bloc remains unknown. The procurement rate is also open to question, as the difference between self-sufficiency noted in mill utilization and in total production is considerably less than the percentage self-sufficiency obtained by comparing total utilization with total production.

The existence of a wide range of error, however, is not extended to aggregate figures, but it is felt that a further study could be made of wool production and processing phases in order to achieve a closer proximity to truth.

The methodology for determining the utilization pattern has been based on assumed proportions of textile output for the categories indicated. The assumptions in most cases are interpolations of published data for the USSR and Czechoslovakia and are intended to represent the best available judgment based on existing information.

The estimated percent utilization of cotton for industrial purposes in the USSR has been carried at 22 percent, based on a reported use of 18 percent in 1939, and on an incomplete statistical breakdown for the years 1940 and 1950. ^{121/} For Czechoslovakia, Poland, and East Germany, an estimated 25 percent was assumed, based on planned data cited in the Czechoslovak Five Year Plan. ^{122/} The estimates for the remaining countries are based on a rationalization of industrial development within the respective countries. The estimates range from 5 percent for China, Albania, Bulgaria, and Rumania, to 15 percent for Hungary.

Military uses for cotton were determined from source material found in the Czechoslovak Five Year Plan cited above. ^{123/} The factors computed indicated the following military per capita consumption factors: 20 kilograms for cotton, 18 kilograms for wool, 5 kilograms for linen, and 1 kilogram for silk. The standards, however, were considered high by the Czechoslovak officials compiling the plans. In order to check the rationale of the military requirements for cotton, comparisons were made with available references indicating military requirements of Western European countries. The proportions indicated in published sources ^{124/} confirmed the estimated per capita cotton military requirements computed from the Czechoslovak Five Year Plan. Estimates for military consumption of cotton in the Soviet Bloc countries, therefore, were computed on the basis of approximately 20 kilograms per military head.

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Estimated trade data of cotton cloth have been compiled from all overt sources and were converted from a linear meter basis at the prevailing Soviet cloth weight of 12.3 kilograms per 100 meters in 1951. 125/

Wool industrial uses for all countries were carried at approximately 5 percent of the total mill consumption, based on a planned estimate of technical cloth and felt uses cited in the Czechoslovak Five Year Plan.

Wool military needs were based on a US post-Korean War analogy. 126/ The estimate used for Soviet Bloc countries assumed approximately 4 kilograms per military head.

Trade data followed the pattern of cotton cloth estimates, utilizing the factor of approximately 54.0 kilograms per 100 linear meters of cloth to determine a weight basis.

Flax industrial cloth data for the USSR was based on prewar utility factors. The percentages included 45 percent for apparel use, 37.5 percent for packing, and 17.5 percent for technical use. 127/

Estimates for Czechoslovakia, Poland, and Hungary were based on planned utility cited in Czechoslovakia in the Five Year Plan, which indicated approximately 22 percent to be used for technical purposes. 128/ For Bulgaria, and Rumania, an estimated quantity ranging from 55 to 75 percent was used, the higher percentage based on the fact that cloth estimates do not clearly distinguish a difference between flax and hemp. A 100 percent factor was used for East Germany, based on the relatively low production of linen cloth and the lack of available raw material alternatives for industrial cloth needs. Trade data follow the pattern outlined for cotton and assume a weight of 37.0 kilograms per 100 linear meters.

Military uses for flax assumed approximately 5 kilograms per military head for the USSR and 1 to 3 kilograms per military head for European Satellites.

The industrial use pattern of synthetic fibers for indicated countries has been based on reports and planned output of tire cord. 129/ Military uses were based on a US analogy and proposed needs indicated in the Czechoslovak Five Year Plan. 130/

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The methodology used to determine the total labor force and electric power requirements in individual Soviet Bloc countries for 1953 was to interpolate an average weight factor of raw material processed per worker and electric power requirements per metric ton from known years and applying the computed factors to the 1953 estimated increase in raw material requirements. 131/

The methodology for determining yarn output for the USSR in the postwar period was to use basic weight equivalents of cloth and knitwear per unit, as reported in prewar and postwar statistics and plans, and relating weights in a direct proportion to the cloth and knitwear estimates in the postwar period -- for example: average weight of 100 meters of cloth times cloth production equals yarn production for cloth; average weight 100 pieces of knitwear times knitwear production equals yarn production for knitwear; yarn production for knitwear plus yarn production for cloth equals total yarn production.

The methodology used for determining the number of spindles and looms in the USSR during the postwar period was to interpolate productivity factors per unit of equipment from known prewar data and postwar planning, and establish a series directly related to cloth and yarn estimates. The estimates, therefore, represent a basic minimum total number of active spindles and looms -- for example: yarn production in metric tons divided by output per spindle per year in kilograms equals total active spindles; cloth production per year in meters divided by output per loom per year in meters equals total active looms.

The methodology used to determine an approximated labor force for the textile industry and for individual segments for 1940 and 1950 was to compute from published data in 1936 an output factor in terms of cloth per worker and correlate data from 1936 to reported and planned increases in labor productivity -- for example: total cloth production of cotton industry divided by total labor force of cotton textile industry equals base output per worker in terms of cloth; base output per worker in terms of cloth times percent increase in labor productivity equals increase in labor productivity over base in terms of cloth.

The methodology used to determine the geographical distribution of the textile industry in the USSR was to interpolate the published regional breakdown percentages from the Third and Fourth Five Year Plans 132/ to conform to the existing standard regional classification. The assumptions followed that the 1953 distribution would

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most nearly approximate the planned 1950 breakdown. The regional production of fiber production has been computed from previously cited sources.

The methodology used for yarn estimates in Albania assumed an average weight of cloth per 100 meters equal to that in Bulgaria: 14.75 kilograms per 100 meters of cotton and 54.0 kilograms per 100 meters of wool.

1950-55 yarn estimates for Bulgaria have been calculated on the reported average weight of cloth per 100 meters and computed against estimated cloth output. Allowances were made for knitwear and stockings: approximately 1,000 to 3,000 metric tons. Estimated weights of cloth used were: cotton, 100 meters equal 14.75 kilograms; wool, 100 meters equal 54 kilograms; flax and hemp, 100 meters equal 30 kilograms; and silk and synthetics, 100 meters equal 18 kilograms.

Yarn estimates for cotton, wool, linen, and synthetics in East Germany for 1953 were made on the basis of calculated weights of previous known years, allowing approximately 20,000 tons for knitwear and 3,200 tons for tire cord. The weights used were: 100 square meters of cotton equal 16.0 kilograms, 100 square meters of wool equal 55.8 kilograms, 100 square meters of linen equal 24.6 kilograms, 100 square meters of silk equal 13.0 kilograms, and 100 square meters of waste equal 90.0 kilograms.

Yarn statistics for Hungary were computed from prewar estimates for 1938. 133/ Computations were made against reported cloth output in order to determine the average weight of cloth per 100 square meters. The calculations thus derived the following weights: cotton, 14.7 kilograms per 100 square meters; wool, 52.0 kilograms per 100 square meters; linen, 37.0 kilograms per 100 square meters; silk and rayon, 13.0 kilograms per 100 square meters. Estimates of yarn were made on the basis of reported cloth production increases during the 1946-53 period. Allowances were made for yarn needed for the knitwear industries which range from 4,000 tons in 1938 to 1,500 tons planned for 1954. 134/

Yarn estimates for Poland in 1951 and 1953 assumed that the average weight of cloth per 100 meters did not vary from 1950 and assumed yarn requirements for knitted goods remained the same. Factors used were: 16.3 kilograms per 100 meters for cotton, 60.0 kilograms per

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per 100 meters for wool, 27.0 kilograms per 100 meters for linen, and 13.7 kilograms per 100 meters for silk.

Estimates of increases in equipment inventories for Poland in 1953 were based on the reported construction and completion of new plants and the efforts to repair and rebuild old and idle equipment. 135/

The data on textile output for Rumania have been estimated solely on announced percentage gains over previous years. There are no published production figures for any single year, except the estimated cotton fabric production for 1946 and 1953.

The methodology employed, therefore, was to utilize planned data where available and to interpolate increases on the basis of announced plan fulfillments. A guide to probable 1950 cloth production was established by the use of the original First Five Year Plan. From these data a comparison of the 1955 planned cloth production to planned consumer availabilities was made. Since planned consumer availabilities were also compared to the 1950 year, an estimate of production for 1950 was made on the assumption that the proportion of production not distributed to the consumer in 1950 would be similar to the computed 1955 difference. The assumption, therefore, considered net trade as one of many variable factors in the determination of cloth output.

With the announcements of planned output for 1954 and 1955, a more realistic judgment of past performances could be made by calculating annual percentage gains over the estimated 1950 production year and comparing with planned goals. The estimates computed therefore represent a statistical judgment guided by a knowledge of textile-processing capacities available in the country.

Estimates of yarn production in Rumania have been computed from the weight of cloth per 100 meters. The assumption was made that the average weight of cloth would most nearly approximate that of Bulgaria. Estimated allowance for knitwear yarn needs were made on the basis of planned quantities for 1951 of 7,800 tons and a prewar quantity of approximately 2,000 tons. 136/ The weights of cloth used were: 100 square meters of cotton equal 14.75 kilograms, 100 square meters of wool equal 52.0 kilograms, 100 square meters of linen and hemp equal 37 kilograms, and 100 square meters of silk equal 13 kilograms.

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The methodology used to determine cotton yarn output for Communist China in 1952-53 has been based on an analogy of productive factors per spindle as compared with the highest US output. The assumption follows that total spindle capacity for Communist China is reasonably accurate, and a probable output per spindle could reach 100 kilograms per year. Allowances were made for idleness of private equipment. 137/

Because working data for production of wool yarn and cloth in Communist China are completely lacking, estimates were made on the basis of reported output in Shanghai in 1950. 138/ Estimates of yarn needs were based on an assumed weight per 100 meters of cloth ranging from 60 to 64 kilograms per 100 linear meters of cloth, with allowances for cord used for carpet manufacture. Assumed increases have been projected for 1951-52. The 1953 cloth increase over 1952 has been stated by the Chinese press to have been 1 million meters over 1952 and the yarn increase to have been 1,200 tons. 139/

Silk cloth production estimates for 1950 were based on published information which indicated silk cloth production to equal 34,000 bolts of woven goods (40 meters per bolt) and 14,500 bed sheets (2 meters per sheet). 140/ Estimates for 1951-53 were made on the computed cloth weight of 13.5 kilograms per 100 meters and interpolated to estimated raw silk production retained by the Chinese government for export. 141/

Because cloth production in the most recent year (1953) has been reported in linear meters, the assumption follows that previous prewar and postwar estimates converted to linear yards now follow the same pattern. No attempts have been made to convert linear yards to linear meters because original estimates were made on a conversion factor applied to a reported number of pieces. The length of a piece has been estimated at from 30 to 40 yards. 142/ It has therefore been assumed that the error existing in prewar figures on a linear yard basis would be cancelled out if attempts were made to convert to a linear meter basis.

The methodology used to determine the geographical distribution of the textile industry in China was to interpolate the published regional breakdown of mill capacity 143/ to conform to the existing standard regional classification. The assumption followed that little or no change occurred in the percentage distribution over 1951-52.

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APPENDIX E

GAPS IN INTELLIGENCE

A major handicap in establishing intelligence in textile products is the absence of satisfactory statistical data on mill capacities, hours worked, new additions to inventories of equipment, trade of raw materials used in processing, and trade of finished textile products. The addition of detailed information on any one or all would aid measurably in the refining of estimates of physical output.

Significant gaps also exist in the prices of finished products and the total value of products, or value added by the industry as related to the total produced by all manufacturing, as well as consumer purchasing power. The addition of this information could be utilized to check present estimates of physical production and to gauge future probabilities with more accuracy.

Gaps also exist in available information concerning the quantity of stocks and inventories. A detailed study of both could aid in gaining a clearer insight into intentions, as related to consumer emphasis and aid to underdeveloped areas.

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APPENDIX F

SOURCES AND EVALUATION OF SOURCES

1. Evaluation of Sources.

Overt sources, including books, journals, and newspapers, have furnished the basis for most of the prewar material in this report. Postwar information has been gathered from newspapers, State Department reports, and monitored foreign broadcasts. A significant contribution has been made on the USSR through the scanning and translation service of postwar periodicals and local papers by FDD and early postwar intelligence reports prepared by OIR.

Covert information sources supply most of the detailed information on the European Satellites.

The reliability of published and reported data in press summaries and broadcasts varies considerably, depending on the degree of emphasis intended. Statistics when published, furthermore, frequently take the form of vague percentages set up on a flexible base and as a result are misleading. Covert sources often are repetitious of press reports but in numerous cases have supplied added detail needed to fill existing gaps, and they add a degree of confirmation to newspaper reports and monitored radio broadcasts.

2. Sources.

Evaluations, following the classification entry and designated "Eval.," have the following significance:

<u>Source of Information</u>	<u>Information</u>
Doc. - Documentary	1 - Confirmed by other sources
A - Completely reliable	2 - Probably true
B - Usually reliable	3 - Possibly true
C - Fairly reliable	4 - Doubtful
D - Not usually reliable	5 - Probably false
E - Not reliable	6 - Cannot be judged
F - Cannot be judged	

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"Documentary" refers to original documents of foreign governments and organizations; copies or translations of such documents by a staff officer; or information extracted from such documents by a staff officer, all of which may carry the field evaluation "Documentary."

Evaluations not otherwise designated are those appearing on the cited document; those designated "RR" are by the author of this report. No "RR" evaluation is given when the author agrees with the evaluation on the cited document.

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